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CLINICAL SKETCHES

JULY 1895

The Barber-Surgeons and the Barbers' Company

THE surgeon of to-day may think it somewhat derogatory to have ever been associated with the barbers, but he must remember that the art of surgery was in a very indifferent position in this country at the time when such a state existed.

This association is, at least, an interesting subject for study, and the 'Annals of the Barber-Surgeons,' written by Mr. Sidney Young, and published in 1890, as well as the 'Memorial of the Craft of Surgery in England,' by Mr. D'Arcy Power, published in 1886, is well worth the attention of those interested in the history of the medical profession.

Mr. Young remarks that the barber-surgeons held a somewhat distinctive position apart from other companies. They were a profession rather than a trade guild, and the company took a prominent place as the promoters of technical education among surgeons at a time when technical education was the method of the day. Even in the middle of the fifteenth century, the company provided for surgical lectures and the regular and systematic instruction of its members. A museum and valuable library were founded, an anatomical theatre was built, and every opportunity taken to encourage the scientific study of surgery.

The origin of the Barbers' Guild partook of a religious character, as shown in the writ of the 12th Richard II. and other documents. Records of the company as early as 1308 are preserved, but it was not until 1540 that a union took place between the unincorporated Guild of Surgeons and their more credited fellow-craftsmen, the Incorporated Company of Barbers.

In considering this remarkable union we must remember that the charter of Edward IV. to the

barbers was really granted to a fraternity which, to a great extent, practised as barber-surgeons, some of whom were surgeons pure and simple, others combined both branches, while some still carried on the more humble craft of shavers and hair-dressers. Therefore this union was not simply of barbers with surgeons, because such a union had existed from the earliest times ; it was the consolidation of the Guild of Surgeons with another body of surgeons who were incorporated, and practised under the name of barbers in conjunction with actual working barbers ; and as the Act provided what the surgeon should and should not do, and similarly with the barbers, limiting their operations also, any defect and apparent incongruity in this union seem to vanish.

The whole subject is far too lengthy to be adequately discussed in this Journal, and we must therefore refer our readers to the above-named works for further information.

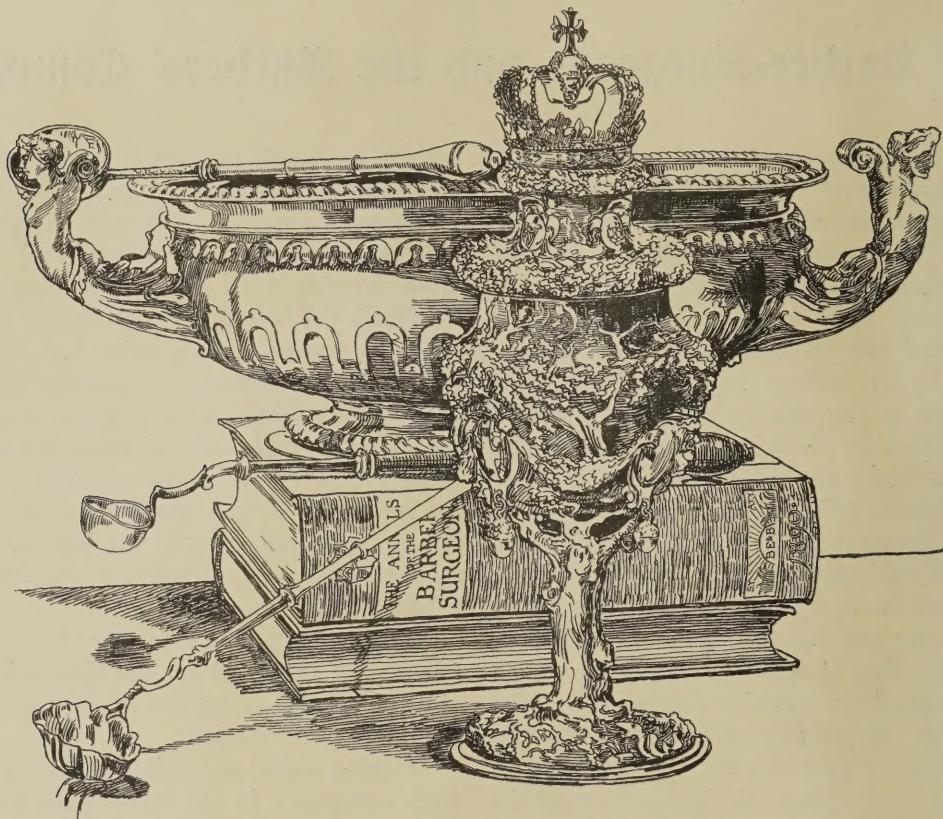
Having called attention to the position of the barber-surgeons in the earlier ages, we would advise the reader to at least pay a visit to the Barbers' Hall in Monkwell Street, where he will see some very interesting relics of bygone ages. The most important of these is the Holbein picture, which has been proved by Mr. Young not to represent the granting of a charter to the company, but to illustrate the union of the barbers and surgeons above referred to.

Through the courtesy of the Master (Mr. Sidney Young) and the Court of Assistants, facilities will be given during the meeting of the British Medical Association for the members to visit this interesting Hall, and to inspect the remarkable pictures and other relics which the company possess. We give an illustration of two of the cups which belong to the

company, as well as two punch-lades. In the foreground stands the silver-gilt cup presented by Charles II. in 1676. It is known as the 'Royal Oak Cup,' being commemorative of the king's escape at Boscobel. On one of the shields is inscribed 'Impetrantibus Chirurgis Regiis Johanne Knight Chirurgo Regis Principali et Jacobo Pearse Eodem Anno Societatis Magistro.' The James Pearse here mentioned was Surgeon to the King and the Duke of York and Master of the Company in 1675, and his wife was one of Samuel Pepys's friends and gossips.

These demonstrations usually took place four times in the year, and were termed 'public anatomies,' the subjects being malefactors who had been executed. There were also 'private anatomies,' at which the attendance was by invitation.

In the books of the company there is an entry for July 13, 1587, relating to the bodies brought to the Hall for dissection, stating that should any of them revive, 'as had been the case of late,' the charges thus incurred should be borne by such person or persons who had brought the body in.



KING CHARLES'S CUP, QUEEN ANNE'S PUNCH-BOWL, AND ATKINSON'S PUNCH-LADLES.

The punch-bowl at the back was presented by Queen Anne in 1704. The ladles were given by Mr. John Atkinson in 1846 and 1851.

In the annals of the company are many references to lectures and demonstrations of anatomy that were given at the Hall, showing that from the period of incorporation (1462), if not earlier, the company took care to provide for the professional education of its members and apprentices.

In addition to the examiners in surgery there were 'masters and stewards of the anatomy,' on whom devolved the duty of conducting the demonstrations.

This cautious provision seems to have been the outcome of a case which happened on February 20 in the same year. A man had been hanged for felony, and after 'hee was dead to all mens thinking, cut downe, stripped of his apparell, laide naked in a chest, thrown into a carre, and so brought from the place of execution through the Borough of Southwarke, over the Bridge, and through the Citie of London to the Chirurgions Hall nere unto Cripplegate: the chest being there opened, and the weather extreeme cold, hee was found to be alive.' This subject lived three days and then died, but it is not

stated whether the surgeons kept him until he was ready for dissection.

Besides the demonstrations of anatomy there were also lectures delivered by members of the College of Physicians and by members of the company. Two of these were trusts, namely the Arrisian Lecture and Gale's Anatomy.

A good dinner followed the demonstrations of anatomy and also the lectures, a fact which is referred to by Samuel Pepys in his diary of the date of February 27, 1663 : 'We were led into the theatre : and by and by comes the reader Dr. Tearne, with the Master and Company in a very handsome manner : and all settled, he begun his lecture : and his discourse being ended, we had a fine dinner and good learned company.'

NOTES BY THE EDITOR

THE members of the Metropolitan Counties Branch of the British Medical Association, and others co-operating with them, have arranged a voluminous programme for the reception, and also for the scientific and social entertainment, of the members who will attend the annual meeting in London this month.

I do not purpose to usurp in any way the province of the 'British Medical Journal,' by supplying information which will be given in the pages of that periodical, but I have thought it would serve a useful purpose to give portraits of the presidents and secretaries of the Sections of the meeting, and of the more prominent officials of the executive.

These portraits will serve as a means of identification for visitors from a distance who may be unacquainted with some of those who hold office on this occasion. At the provincial annual meetings the want of such a means of identifying individuals has been very apparent, judging by the number of inquiries which are commonly made even regarding quite eminent members of the profession.

I have also thought that a short description of that old institution, the Barbers' Company, would be worth giving. There is much of this history which medical men may study with interest, and many of the relics are well worth seeing.

When it was decided to hold the annual meeting of the Association in London this year, Mr. Sidney Young, the present Master of the Barbers' Company, was asked to afford facilities for the members to visit the Barbers' Hall. To this he responded most kindly, and he has not only agreed to throw open the Hall, but promised to give a description of the Company's possessions upon some particular occasion.

As the author of 'The Annals of the Barbers' Company,' Mr Young is eminently capable of giving a most interesting lecture.

If the members of the British Medical Association are greeted in the autumn with the hot weather which usually comes to us at the end of July, and which is very much in evidence in June, they will be able to experience the close air and heavy smells with which London streets are pervaded at that season. So many of us get away from this disagreeable result of bad sanitation that we hardly realise its extent. This year, however, we in London have all had ample opportunity of appreciating the insanitary condition of the streets and house areas, an experience which appeals most eloquently to our sense of smell and taste.

As regards our streets, we are happily free from the open drains of Amsterdam, or even the cesspools of Paris, but we suffer from the odour of the leavings of hundreds of thousands of horses and the decomposing house refuse which is ridiculously called 'dust.'

To be popular when discussing municipal reforms, one should deal with the subject of 'open spaces'—'London's lungs'—or advocate the conversion of some unused cemetery into a public garden.

The advantages to be derived from these latter forms of metropolitan improvements are great indeed, but not more important than the cleansing of our Augean stables.

When will some County Council Hercules arise to reform the matters I refer to ? When shall we be able to drive about in carriages moved by electricity, and so get rid of the insanitary evils attending the use of horses ? When will our 'dust' be removed in a regular and systematic manner, and without a considerable portion of it being blown by every gust of wind, during its removal, into the faces of the passers-by ?

In Paris the introduction of steam carriages is attracting much attention, and I believe there is no bylaw there to prevent it. Some years since we saw some steam or electric carriages moving about London, but the law stepped in and stopped their career. Surely carriages propelled by steam or electricity would be quite as safe as our present horse traffic.

Since writing the above I have seen a report in the newspapers of a *petroleum motor carriage*, which in England seems to promise a fulfilment of the suggested requirements.

The day will probably come when our London streets will no longer be contaminated by horses, and when perhaps even our pavements will be free from the leavings of our pet dogs, and when we may be able to walk erect, without concentrating our eyes upon the ground to avoid soiling our boots with nastiness.

In those days, also, perhaps walking may become an exceptional effort in the streets, and bicycles will be kept at every door.

* * *

The prize of three guineas offered to medical students for the best report of an interesting clinical case has been awarded to Mr. A. H. Brodribb, of St. Mary's Hospital, to whom a cheque for the above amount has been sent.

* * *

The Sydenham District Medical Society held its annual dinner at Richmond on June 20, Dr. Batten, Vice-President, occupying the chair. While expressing their appreciation of Dr. Batten's chairmanship, the members present referred with great regret to the absence of the President, Dr. John Galton, from illness. I am glad to be able to report, however, that he has now perfectly recovered from his very severe attack.

The members of this excellent society meet at one another's houses, have a book club, and in other ways work and take their recreation harmoniously. To show the great advantage of such a club, I may mention that although one of the objects of the society, when first formed thirty years ago, was the adjustment of ethical difficulties, not once has anything occurred to require judgment upon this score.

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Original Papers

ON THE EFFECT OF VAGINAL DOUCHING WITH CORROSIVE SUBLIMATE SOLUTION IN PROLONGING THE FIRST STAGE OF LABOUR

By G. ERNEST HERMAN, M.B. LOND., F.R.C.P.

Senior Obstetric Physician to the London Hospital; Physician to the General Lying-in Hospital, &c.

ONE of the precautions adopted to make the birth-canal of a puerperal woman aseptic is the use of a vaginal antiseptic injection early in labour. The antiseptic that has been proved to be the most trustworthy in midwifery practice is corrosive sublimate.

At the General Lying-in Hospital it was at one time the routine practice to give a vaginal douche of 1-2000 corrosive sublimate solution as soon as possible after the patient was admitted. But the midwife, the pupil midwives, and nurses came to think that this douche made the first stage of labour last longer. The sublimate douche was therefore discontinued, and a douche of Condy's fluid and water given instead, a sublimate douche being only used in cases in which there was a suspicion of gonorrhœa.

It seemed to me that the fact—if it were one—that a sublimate douche prolonged the first stage of labour was important, and ought to rest on a better foundation than the opinion of nurses. The rate of dilatation of the soft parts during labour is modified by many different conditions, which we understand very imperfectly. For instance, we do not know why the pains are frequent and strong in one patient, and slow and weak in another. We cannot measure before delivery the amount of liquor amnii. We cannot predict of a particular cervix whether it will dilate quickly or slowly. While we are thus ignorant of the conditions upon which the rate of dilatation of the cervix depends, we cannot say of any one case that it has been made quicker or slower by some particular treatment. The only way of testing any influence is that of observing its effect in a large number of cases.

At the General Lying-in Hospital there are two labour wards. These are, as a rule, used alternately, so that whether a patient is placed in one or the other is a matter of chance. Early in this year I asked Dr. C. E. Sparks, the House Physician to the Hospital, to let every patient admitted into one labour ward have the sublimate douche immediately after ad-

mission, but not to let those admitted into the other labour ward have any douche (unless there was some special reason for departing from the rule), and to carefully note in the two sets of cases the length of the first stage of labour.

Dr. Sparks has done this, and has furnished me with the following report on the cases observed by him under the above circumstances :

'Report of 100 cases taken to investigate the influence of corrosive sublimate (1 in 2000) douching on the duration of the first stage of labour.'

'Of 65 cases <i>not</i> douched, duration of first stage	735½ hours
<i>i.e.</i> average duration of first stage	11½ "
Of 35 cases <i>douched</i> , duration of first stage	562 "
<i>i.e.</i> average duration of first stage	16 "
Of the cases <i>not</i> douched 10 were primiparae.	
Of the cases <i>douched</i> 14 were primiparae.	
Of the primiparae <i>not</i> douched, average duration of first stage	11½ "
Of the primiparae <i>douched</i> , average duration of first stage	15½ "

'The extremes of time of the *not-douched* primiparae were 5 hours and 18½ hours. The extremes of the *douched* primiparae were 4½ and 36½ hrs. Note.—In one of these douched primiparae the first stage lasted 30½ hours, and the douche was not given till the os was nearly fully dilated.

'In estimating when the pains began, the statement of the patient had to be to a large extent relied upon. As much as possible one endeavoured to date the commencement of the pains from the time the patient had *regular* pains.

'In the above results no consideration has been taken of the fact that in some cases—I should say a very few—the membranes ruptured prematurely.

'The cases were as nearly as possible consecutive, one labour ward being kept for the douched cases, while the other ward was kept for the not-douched cases. The reasons why there were more cases douched than not douched were: (1) That some cases came into the hospital with the os fully dilated and the head in the cavity (I think it may be taken as a general statement that these were quick cases, and so would shorten the average duration of first stage in the not-douched cases). (2) The douche was not given, as a rule, at night. (3) The douche was not given when there was much albuminuria.'

These observations show that there is good reason for thinking that sublimate vaginal douches used early in labour do prolong its first stage. I think that the sublimate must do this by its astringent

effect on the mucous membrane, as it is difficult to understand how the length of labour can be altered by killing germs resident in the vagina.

SOME TYPES OF IMBECILITY AND MENTAL ENFEEBLEMENT

By FLETCHER BEACH, M.B., F.R.C.P. LOND.

Physician to the West End Hospital for Nervous Diseases, and to the Winchester House Training Institution; formerly Medical Superintendent of the Darenth Schools for Imbecile Children.

(Continued from vol. i. p. 170)

NON-CONGENITAL CASES

Coming now to the non-congenital cases, we shall notice that many of the signs which distinguish the congenital cases are absent. In fact, patients belonging to the non-congenital class often have a bright expression, a good-shaped head, and well-made limbs; these children can usually walk and run well, and if the faculty of attention is well developed, they learn with little difficulty. Often, however, very little progress is made, as the eye is perpetually wandering and the attention cannot be fixed.

Epileptic Imbecility.—This class is composed of cases in which, with cessation of fits, the greatest improvement, and even recovery, takes place, while others progressively deteriorate, the fits becoming more frequent and severe, and the result is utter dementia.

L. P., aged fifteen years on admission to Darenth Schools, represents the first class. She was born with a fairly good family history, went to school and got on well, and remained so until a few weeks before admission. Her parents then tried to force her to go on the streets to earn her living, and the worry consequent on this brought on epileptic fits. On admission



FIG. 1.

she had a dull, frightened look, but was quiet in manner, and soon made herself useful in household

work. She had had a good education, so she was not sent to the schoolroom, but was employed in the kitchen. She had very few fits after admission, and soon became bright and cheerful again. She could



FIG. 2.

have been discharged recovered a few years after admission, but as it was not considered advisable for her to live again with her parents—who also never came to visit her—an arrangement was made with the guardians of her parish by which she ceased to be a patient, and was employed in the kitchen as a scullery maid.

E. G., a girl, aged ten years on admission, also recovered under treatment. Her father was excitable and intemperate at times, and her maternal uncles were subject to fits. Five of the patient's brothers and sisters died of convulsions, so there was evidently a good deal of neurotic taint in the family. The fits from which E. G. suffered were supposed to be brought on by a fall from a swing when eight years old, as she was previously in good health and free from them. She, however, had convulsions when teething. On admission, she had rather a dull appearance, but was cheerful in manner, though irritable at times. She went to the schoolroom and made good progress, and was also very useful in domestic work. After a few years' residence she learnt all that she required to know in school, and was employed partly in the ward and partly in the laundry. When about seventeen years old she was kept on for a while as a servant, on the same arrangement as in the preceding case, and was finally discharged recovered to the care of her parents.

Some cases appear to remain quite stationary under treatment, such as L. F., who on admission was a fair-haired, well-nourished, nice-looking child, but very listless and unable to say more than a few words. For a time she became brighter, and then, as the result of frequent fits, she became lost and dazed. For some months she remained in this condition, and

then, as the fits became less frequent, she became brighter and talked more.

In still other cases, like that of M. Y., the fits become more frequent, more severe, and the patient is reduced to a low demented condition. The accompanying photograph (fig. 2) shows the low type of face, and the state of profound dementia to which she was reduced.

Inflammatory Imbecility.—The term Inflammatory Imbecility has been applied to cases in which the patients have been enfeebled mentally after some febrile illness, such as measles, typhoid fever, whooping-cough, or scarlet fever, and as a result or complication there is inflammation of the brain or membranes, not sufficiently grave to be fatal, but serious enough to cause mental impairment. The amount of damage done is of course mainly dependent upon the intensity of the morbid process. This, unfortunately, we have seldom a direct opportunity of measuring, as the patient does not come under our notice until long after the disease has passed away. If one of the maladies above mentioned should occur in a child previously disposed to imbecility or mental enfeeblement by being born of parents whose family history shows the existence of marked neuroses, there would be the greater likelihood of mental deficiency following.

E. B. is an illustrative case, caused by an attack of measles when she was four years old. Afterwards she became excitable and passionate, and remained for some time in an uncontrollable condition. On admission, some years subsequently, she was a fairly nourished, well-behaved girl, who was able to be of some use in the ward. She was sent to the school-



FIG. 3.

room, and it was found that she could read incorrectly from the First Standard book, spell words of two and three letters, and knew a few colours. After four years' training she could read correctly from the Second Standard book, spell words of four and five letters, write words in a copy-book, work multiplication tables, and make herself useful in sewing and in

domestic work. I sent her home on two months' trial to see what progress she would make in the outside world, but the lady into whose service she was sent was impatient with her, and E. B. returned at the end of two months to Darenth Schools. She continued to make herself useful in the asylum, and was quiet and well-conducted.

Hypertrophic Imbecility.—This includes a class of cases closely allied to the inflammatory type; in all the autopsies which I have made of patients suffering from this disease, and who have died, there has always been chronic inflammation of the brain. Hypertrophy of the brain is a comparatively rare disease, and has attracted little notice in England. It is chiefly met with in asylums for lunatics and imbeciles. Laennec first drew attention to its occurrence in children, to its similarity to chronic hydrocephalus in many of its symptoms, and the likelihood of its being mistaken for it. The cause of the disease is obscure. Rokitansky thought that the increased bulk of the brain was not due to the development of new fibrils, or to the enlargement of those already existing, but to an increase in the intermediate granular matter, most probably occasioned by an albuminoid infiltration of the structure. It has, however, now been proved to be due to an increase of the neuroglia. The brain substance is tough, like boiled white of egg or cheese, and the change is accompanied by an increase in the number of blood-vessels and the presence of a large number of leucocytes. The parts affected are chiefly the white matter of the two hemispheres, sometimes the corpus striatum and optic thalamus, rarely the pons and cerebellum. Imbecility is said not to follow, unless the hypertrophy is accompanied by encephalitis, which usually follows in the first or second year. The principal symptoms are headache, at times intensified, excitement followed by coma, blunting or arrest of the intelligence, difficulty in walking, and convulsions. The symptoms are less marked in children than in adults, because the brain is less compressed, the cranial cavity increasing in size as the brain enlarges.

The following case is one of imbecility due to hypertrophy of the brain.

A. C., a boy, was ten years old on admission. His mother was hysterical, and had an epileptic fit when pregnant with her eldest child. The maternal grandmother died of epilepsy. On the father's side there was a history of phthisis. The mother had a fit when pregnant with A. C., and became unconscious. Evidently hereditary neurosis plays an important predisposing part in this case. When two years old,

while teething, the patient had a fit, and he has had them ever since. He was always dull and sleepy, and as a child used to 'bob' his head forwards. His head was large when he was born, but the projections on the forehead have since come on. He was a fairly grown boy for his age, but had a very vacant look. The head was large, square in shape, and there were well-marked frontal prominences. The circumference measured 22 inches; transverse diameter 14 inches; antero-posterior diameter 15 inches; width of forehead $4\frac{1}{2}$ inches. He complained at times of headache, and pointed to the right temporo-parietal region when asked where the pain was situated. There was a very slight depression, the size of a sixpence, in the region of the anterior fontanelle. He walked slowly and totteringly, hanging his head slightly forward, with the left shoulder depressed. He went to the schoolroom fairly regularly, but made no progress. Questions were answered slowly, and there was a distinct pause, sometimes a minute in length, before



FIG. 4.

the reply commenced. He suffered much from headache, and altogether gradually deteriorated. Towards the last he became weaker on his legs, and fell about more. He had a number of epileptic fits during his residence at Darenth Schools, and died exhausted, after a series of very severe ones. On removing the calvaria at the autopsy, the brain substance sprang upward, as if relieved from pressure. The cranium was very thick and eburnated. The brain weighed 53 ounces, was hard and cut like cheese. The convolutions were simple in arrangement. The white matter of the brain was in excess both relatively and absolutely. The central parts of the brain were softened, and about three drachms of fluid were found in the lateral ventricles.

According to Andral, there are two periods in the disease: in the first, the chronic stage, the symptoms are slight; in the second, unless the patient has been previously carried off by the intervention of some disease, those characterising an acute affection

appear, and the patient dies of compression of the brain or acute hydrocephalus. Out of twelve cases who have been under my care, eight have died; four of these died of convulsions, two in a comatose state, and the remaining two were carried off by diarrhoea and bronchitis. The brain in the above case, though heavy (53 ounces), is not by any means the heaviest I have seen. In another patient, who died aged fifteen years, the brain weighed 62 ounces. As far as the treatment goes, all that one can hope to do is to keep the patient in as healthy a state as possible, and treat any active symptoms which may arise.

Traumatic Imbecility.—In this class are included cases who, in consequence of a fall or blow on the head, become imbecile. Under this heading also come cases suffering from mental impairment as a result of injury to the head caused by narrowness of the pelvis and prolonged labour. The degree of imbecility so produced must vary with the amount of destruction of the nervous tissue. According to Ireland, 'sometimes the injury to the mental power is permanent, sometimes it disappears more or less slowly; in some cases a trifling injury causes grave disorder; in others, what appears to be a great injury leaves no visible defects.' Hereditary predisposition has, no doubt, much to do with the result; cases in which a trifling injury causes grave disorder will on inquiry be found to be due to a family history of neurotic disease.

E. R., a girl, aged twelve years, illustrates this class of imbecility fairly well. She was born while the mother was standing, and the head came in contact with the foot of the bedstead. The mother was very



FIG. 5.

much worried when pregnant with the child, and this, no doubt, further contributed to the patient's imbecility. The family history was good, there being no consumption, insanity, imbecility, or epilepsy on either parent's side. E. R. made good progress in the schoolroom, and was very useful in household and ward work.

REMARKS ON CASES OF RUPTURE OF THE LIVER

By GEORGE WHERRY, M.C. CANTAB., F.R.C.S.

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THE following is an example of a slight abdominal shock causing a rupture of the liver which proved fatal, a gall-bladder tightly packed with large stones accounting for the serious injury.

A stout bed-maker was about to mount a chair to take down a picture, when she slipped forward and struck her body above the navel against the rail of the chair. The patient had not mounted on the chair, so that the fall was not a very heavy one.

Vomiting and great pain in the abdomen immediately followed. When I arrived she was collapsed, but just able to give an account of the accident. Except for a cup of tea she had taken no breakfast, and it seemed unlikely that her serious symptoms were due to rupture of the stomach or duodenum.

The patient was most carefully removed to the hospital; her pain was relieved by morphia, but tympanites and exhaustion terminated in death in about forty hours.

At the autopsy a rent in the liver about three inches long was found, the gall-bladder was tightly packed with large faceted stones. The position of the rupture in the liver just over the gall-bladder, and the history of the accident, clearly indicated that the impacted gall-stones were responsible for causing a fatal lesion from so slight a fall.

Patients after rupture of the liver so rarely recover, that the history which follows will prove interesting.

O. B., aged 39, a scaffolder, was admitted into Addenbrooke's Hospital, December 6, 1894. The patient was going up a ladder, carrying an armful of shavings under one arm, when, in crossing off the ladder to the platform, he fell backwards, and struck his shoulder on a scaffolding about twelve feet from the ground, and thence completed a fall of about thirty feet. It was noted that on admission he was profoundly collapsed, but not unconscious. Skin pale, cold, and clammy; the pulse barely perceptible; vomiting occasionally. There was a fracture of the right clavicle at the inner third, a scalp wound behind the left ear, and there was a fissure in the outer table of the skull, but no depression.

Over the right front of the chest and behind the anterior axillary fold there was marked surgical

emphysema. The situation of the rib fracture could not be detected.

In forty-eight hours the patient had somewhat rallied, and vomiting, which was present on the day of his admission, was not persistent. The heart's apex beat was an inch outside the nipple line, and there was dulness in the right axilla, and over the base and front of the right lung. Under the right clavicle was marked skodaic resonance. Breath sounds, vocal resonance, and thrill almost absent over the dull area. Dulness soon replaced the high pitch resonance under the right clavicle. The patient was lying on his back, and became distressed in breathing on the slightest movement. Temperature ranged from 98° to 100° F. Ten days later jaundice set in; bile appeared in the urine, the faeces became colourless. Hepatic dulness as far as navel, occasional tendency to collapse and to increase in the fluctuating hepatic swelling.

On December 29, by aspiration, twenty-three ounces of bile and blood were withdrawn from the swelling. January 2, 1895, the aspiration had given only partial relief. The fluid reaccumulated, and the patient was again often in pain, with occasional attacks of collapse.

Operation.—With the patient under an anaesthetic the abdominal swelling was freely opened by a three-inch incision below the ribs in the right hepatic region. A large mass of clots of different ages, some stained with bile and others quite recent, with bile-stained bloody fluid and a little pus, was evacuated. The under surface of the liver was occupied by clots. A drainage tube, packed around with cyanide gauze, was inserted into the considerable cavity.

The case from this time did exceedingly well. The jaundice disappeared slowly; a quantity of bile was drained away every day. Gradually the discharge grew less, the cavity contracted, so that the patient eventually entirely recovered, and was able to return to an active life. I saw him on July 1, in excellent health.

There could be no doubt that the repeated attacks of collapse in this case were due to bleedings from the liver injury, and it is interesting to note that so much bile in the peritoneal cavity should have been so well tolerated and have caused no peritonitis, except perhaps locally. The clots evacuated were evidently of various ages, and corresponded to the several attacks of faintness which occurred before the operation.

This accident belongs to a series caused by the climber using one hand instead of both in his climb-

ing. Scaffolders¹ often run greater risk than bricklayers. The slightest slip or want of balance when only one hand is 'holding on' may lead to a fall. The Alpine adventurer knows this well, and on difficult rocks takes care to have both hands free, his ice-axe slung round his arm or wrist, so that his grip is secure.

The scaffolder has no rules, and no tradition or training in his craft. If a bricklayer carries bricks up a ladder, using the ancient hod which balances on the shoulders, it is not gripped by the hand, and takes nothing from the prehensile power of the man. If anything drops, it is the bricks, not the bricklayer. It becomes increasingly important, as more lives are preserved by surgery after accidents, that surgeons should consider and give publicity to the simple way in which so many might be prevented.

Public Health

THE METROPOLIS FROM THE POINT OF VIEW OF HYGIENE

OUR medical brethren, coming from all parts of the country to the meeting of the British Medical Association, will for the most part rather enjoy the social intercourse and opportunities for the interchange of views on professional matters that such a large gathering affords than study social or health questions. A few may, however, desire to look upon some of the numerous object-lessons in hygiene in the metropolis. For these latter we give the following brief summary of the more important things to be seen directly connected with public health.

Housing of the people.—The visitor may study tenement life in abundance in nearly every district; he may also view good and bad types of artisans' dwellings, model lodging-houses, and shelters.

With regard to bad types of model artisans' dwellings there are some examples to be found in Mowbray Buildings, Southwark, which recently formed the subject of proceedings in the police-court, the faults being mainly dark passages, defective arrangements for the reception of dust, bad types of closet accommodation, and overcrowding of blocks on a given area, preventing, to a considerable extent, the access of sunlight and air.

¹ See *Preventive Surgery*. (Deighton, Bell, & Co.) Price 6d.

Good blocks are those erected in various parts of London by the Artisans', Labourers', and General Dwellings Company (Limited). As a type of a model lodging-house, that known as Lord Rowton's, in the neighbourhood of Vauxhall, is well worth a visit. The London County Council have also erected on the Shelton Street area, just out of Drury Lane, a model common lodging-house.

There are a number of shelters, established partly on a philanthropic and partly on a commercial basis, in different parts of London, and arrangements can easily be made to pay a night visit to any of them. The most convenient for this purpose would probably be the large Salvation Army Shelter, close to Edgware Road Station in Burne Street.

If it be desired to know what class of property is condemned by sanitary authorities in London under the Housing of the Working Classes Act, and what is done with sites that are cleared under that Act, the following may be visited, particulars having first been obtained from the medical officers of health of the respective districts :

Brookes Market, Holborn ; Ann Street, Poplar ; Mill Lane, Deptford ; Green Street and Gun Street, Southwark ; Moilra Place, Shoreditch ; Norfolk Square, Islington ; the Churchway Area, St. Pancras ; Prospect Terrace, St. Pancras ; Star Road, Fulham ; Salutation Place, Lambeth.

Disinfecting appliances.—St. George Hanover Square, St. James Westminster, Hampstead, St. Pancras, St. Giles, the Strand, and several other districts, use steam disinfecting appliances of a modern type. One of the best and most complete is that erected by the St. Pancras Vestry ; it is made by Goddard & Massey. In connection with the disinfection there has also been erected a shelter for the temporary housing of persons turned out of their rooms during the operation of fumigating.

Mortuaries.—One of the best types of mortuaries, with post-mortem room and coroner's court, is to be seen in Marylebone ; it is situate in Paddington Street.

The Parkes Museum.—There are three collections of sanitary appliances in London—viz., at the Parkes Museum, at the Hornsey Museum, Highgate, and at King's College ; that at the Parkes Museum is the

best, and its central situation in Margaret Street, within three minutes of Oxford Circus, renders it easy of access. During the meeting of the Association, Mr. Wynter Blyth, the present Chairman of the Council of the Sanitary Institute, will attend daily, and will be assisted by the Curator and Secretary in showing visitors the various exhibits illustrative of sanitary science applied to practical purposes.

Drainage and sewerage.—In the Museum is an excellent model, designed by Mr. Rogers Field, of the most advanced system of house drainage, and many thousands of private houses and public institutions possess drains arranged on this model.

Should any of the members wish to inspect closely the great sewers of the metropolis, this can be easily arranged through the medical officers of health of the respective districts. The great intercepting system of sewers, the pumping stations, and, lastly, the elaborate system of precipitation by chemical treatment and the conveyance of the sludge out to sea are one of the greatest engineering feats of the age. The water supply is in the hands of various companies ; being, therefore, split up into sections, there is nothing gigantic about any one of the works, but with regard to the sewage the scale is colossal. The main intercepting sewers have a length of over eighty miles, and originally cost the London rate-payers four and a half millions sterling. On the north side of the Thames the intercepting sewers are three ; they meet at Abbey Mills and discharge their contents at Barking Creek. South London is also provided with three intercepting sewers ; these ultimately discharge at Crossness. On application to the Clerk of the County Council, or to Mr. Dibdin, the chief chemist, the outfall at Barking may be visited and the process of precipitation and treatment seen.

The Metropolitan Asylums Board.—The system of isolation and the facilities for the removal of infectious persons are, if not all that can be desired, superior to any existing in any other city or country.

The hospitals of the Board are : The Eastern Hospital, the North-Eastern Hospital, the North-Western Hospital, the Western Hospital, the South-Western Hospital, the Fountain Hospital, the South-Eastern Hospital, the Northern Hospital, the ships down the river for the treatment of small-pox, and the Gore Farm Convalescent Hospital.

There is also in course of construction Brook Hospital, Shooter's Hill. Those who wish to see the most advanced type of hospital construction should visit this hospital. The river ambulance system is also worth inspection. The Asylums Board possess three wharves with piers and floating dummies for the embarkation and disembarkation of patients, besides three specially constructed steamboats fitted up with every comfort for the conveyance of patients to and from the floating hospitals at Long Reach.

The three ambulance steamers enable no less than a hundred small-pox patients to be conveyed at one time to the ships. The various ambulance stations and hospitals of the Board are connected together by telephone, and through the general system of telephonic communication they are also in connection with most of the offices of the local authorities.

THE MIDWIVES BILL

WHETHER the Registration of Midwives Bill is a desirable piece of legislation or not, we think there is some reason for considering that it virtually institutes a new order of medical practitioners.

Sir Walter Foster has stated his views in a very clear manner in his speech before the General Medical Council. He was actuated by a desire to prevent the large amount of suffering and fatal disease which was the outcome of 'the absence of public provision for the education of midwives.' At the same time, he thought that the words 'midwifery nurse' should be substituted for the word 'midwife.'

'This Bill would give to those who were in no sense competent to undertake the sole charge of these cases a quasi-legal sanction to become practitioners of midwifery. He had no objection to women practising midwifery on the same conditions as men, or they might be midwifery nurses. But to perform the duties which were declared on the part of men to require, in addition to midwifery, a knowledge of medicine and surgery, they should require a similar knowledge on the part of women. He thought that the Council should be extremely jealous of opening any back door by which any person after a small training should go before the public and say that she was by the law of the land registered to undertake the treatment of any woman who might apply to her

to attend her in labour. To state on paper that she was merely to attend natural labour was not a guarantee that she would not take other cases. They should not sanction any Bill which would introduce to the practice of midwifery women on conditions less important than those attaching to men. Throughout the country there were unqualified men who were skilful medical practitioners, and if the employment of one of them was illegal and practically infamous practice in the eyes of the Council, they could not consistently or logically sanction a Bill which would put a woman in the position of being legally qualified to attend midwifery after three months' training in a hospital, even without any training as nurse, and with no knowledge of medicine or surgery, and whose sole qualification was that she possessed a certificate as her credentials for obtaining admission to the register. The Council should proceed with extreme caution before sanctioning any Bill which would place a new class of practitioners on the register, and give to these women—many of them worthy, but many imperfectly educated—a legal status for the practice of midwifery.'

Mr. Wheelhouse, in supporting the motion, observed that midwives would exist as long as the world lasted, but that was no reason for making them able to come to the front with a legal stamp as practitioners of midwifery.

Dr. MacAlister, upon the other hand, strongly objected to the change of title, and Dr. McVail, referring to what fell from Dr. MacAlister, said that

'Before 1886 there was no legal definition of midwifery; it became in 1886 one of the three standard branches of the profession, on the ground that it would not be safe to license anyone to practise midwifery without a thorough knowledge of surgery and medicine. The Bill defined a midwife to be "a woman who undertakes to attend cases of natural labour without the direct supervision of a medical practitioner."

'Would any member of the Council undertake to define "natural labour"? The Bill left its definition to the midwife, and in the case where assistance was required the Bill only provided her with the medical officer of health. Where was she to get help, and was she in the exigencies of the case to use forceps or

turning or to perform craniotomy? Of course, it would not be natural labour then.'

Dr. Glover proposed as an amendment to the motion: 'That the term "midwifery nurse" should be struck out of the motion and that the term "nurse midwife" should be substituted for it.'

In the end the Council determined by 14 votes to 12 to retain the title of the Bill.

At the adjourned discussion upon this subject Sir Walter Foster moved to make the definition of the term 'midwife' mean 'a person' who undertakes to attend cases of natural labour. If the Bill remained as it stood, 'the consequence would be that there would grow up under this Bill a condition of things in which all the resolutions of the Council in regard to covering would practically be set aside. A medical man, instead of employing a man as an unqualified assistant, would employ two or three of these women in different localities to receive orders and to call in the doctor when he was wanted for a complicated case, and to transfer to him all the general practice arising out of this case of midwifery. If this class of midwifery practitioners was to be instituted, it was only fair to the male sex that they should be enabled as well as women to act as midwives. If the Council wished to afford a cheap means of access to the profession, the road should be open both to men and women. They did not want to raise a class of persons whom they did not think worthy to be placed on a register as practitioners of midwifery. They did not want to abolish midwives for a moment, but to get them as good as possible for the benefit of the community, but in doing that he did not want to open a door for easy access to practice which would become a great difficulty in the Council.'

This view was strongly opposed by Dr. MacAlister and Dr. Glover, but Dr. McVail said he would support Sir William Foster. 'A medical student,' he said, 'who had studied anatomy, physiology, and the fundamental sciences of medicine in a way in which these women would never study them, although coming up to the examination instituted under this Bill, would be turned away. It was not knowledge that was to admit, but sex only—a preposterous position to take up. This Council was coolly told that they were not to give this midwifery diploma to men, because that would be opening a door to unqualified practice. This door would be opened equally, whether

for men or for women. Was such a woman to be precluded from doing anything whatever that might arise in the course of treatment? They could not stop simply at the delivery of the afterbirth and the putting on of the bandage. There was the after treatment, which really belonged to the Bill, although it was not expressed in it. He entirely agreed that the resolution knocked the Bill to pieces, and showed the absurdity of attempting to set up a new class of practitioners under the conditions which it contained. If the Bill had contained provision for the supervision of these women by medical men, he would have given it his support, but as the Bill stood at present he must vote for the resolution.'

The reply to the Privy Council.—On the Council resuming on the subject of the Midwives Bill, Sir Wm. Turner moved: 'That the answer to the Lord President in reply to his desire for the opinion and observations on the subject of this Bill should consist of two parts: (1) The report of the committee, omitting their specific recommendations; (2) the resolutions now adopted by the Council.'

Sir Walter Foster moved: 'That the answer to the Lord President should be that this Council, while desiring to improve the education, training, and control of midwifery nurses, cannot support the Bill for the Registration of Midwives now before Parliament, inasmuch as that Bill would give a legal status to women who are not properly qualified to take sole charge of midwifery cases.'

In the end Sir Walter's motion was lost. The opinion of the majority of the Council seems to have been that they were bound to support this Bill, and not to suggest any vital alterations, chiefly because the Government had 'done them the compliment of asking their advice,' not wishing for any severe criticism.

It is a question whether this Bill as it stands is not a retrograde movement, and whether, in taking measures to ensure the better education of midwives, the Government should not also take the opportunity of extending to the poor women, who are at present unable to pay medical men for this purpose, the advantages now given under the Poor Law to those suffering from ordinary illnesses.

It has been urged that when the midwife has once received the official stamp, it will be very difficult to control her actions. It will certainly be beyond the scope or power of the General Medical Council to do so.

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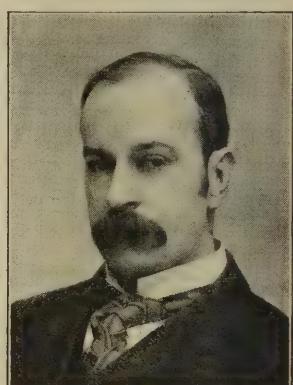
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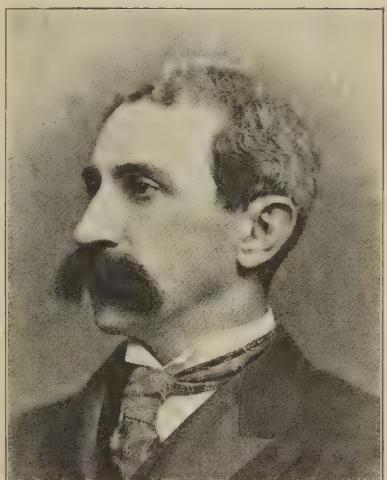
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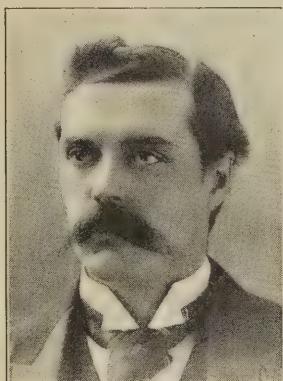


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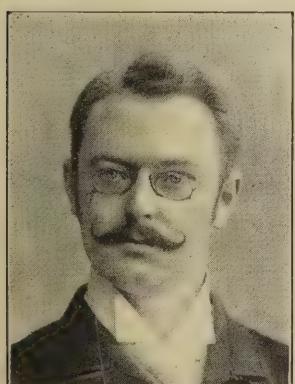


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DISEASES OF CHILDREN



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SPINA BIFIDA

When the plan introduced by Dr. Morton, of Glasgow, consisting of injection of iodine and iodide of potassium in glycerine into the sac of a spina bifida, was established, it was generally recognised that a great advance had been made in the treatment of this affection. Modern antiseptic surgery has, however, opened the door to a still further improvement.

The methods formerly adopted of excision of the sac, although sometimes favourable, were so dangerous from septic contamination that they had almost been discarded as unjustifiable. Now, however, these operations are being revived with better results. In the March number of '*Annals of Surgery*', Dr. Henry O. Marcy, of Boston, Mass., describes such an operation.

In referring to the anatomical position of the spina bifida, he makes a great point as to the hydrostatic pressure upon the parts, and as an item of treatment advises absolute recumbency during convalescence to prevent excess of pressure at the affected part.

He urges that operation upon a spina bifida should not now be especially dangerous. He states : 'I have felt for a long time that the essential features of the surgical treatment of spina bifida were the same as in the operation for the cure of hernia—the isolation and removal of the sac (having first ascertained its contents), and the reinforcement of the structures in a way to prevent, as far as possible, the return of the tumour.'

'Undue loss of the cerebro-spinal fluid in the opening of the sac may result in sudden death, because of changes incident to the disturbed relations of the intracranial organs. On this account the head must be considerably lowered prior to the opening of the sac.'

'A free dissection is necessary, elliptical incisions being made upon either side, reserving ample lateral flaps to compensate for the retraction of the distended covering. It is wise to carry the dissection entirely to the base of the tumour before opening the sac, since, owing to the distension, the relation of the structures is more easily defined. Having placed the patient upon an inclined plane, the sac should now be emptied, and this is best effected by a trocar, in order that the fluid may be somewhat slowly withdrawn, and thus the operator can observe the changes, if any occur, in the cerebral centres.'

'Owing to the fact that certain more or less important portions of the spinal cord are often spread out upon the inner wall of the sac, it is best to open

the sac freely and dissect the same, if possible, for the purpose of returning any nerve filaments thus found within the spinal canal. This having been effected, the walls of the sac are carefully held by an assistant in order that the base may be coapted by suturing. This is best accomplished by the use of a needle with its eye near the point, so as to apply a double continuous suture which encloses the entire base of the tumour in even, uniform compression, the stitches being subdivided as the operator judges advisable. It is well to remember that coaptation and compression sufficient to prevent the leakage of the fluid is all that is desired ; force beyond this, applied to the parts enclosed, cuts off the circulation in the tissues and may lead to necrosis of even aseptic structures. A tendon suture is greatly preferable to catgut, since it is much more slowly absorbed. An aseptic animal suture is important, since it is deeply buried and must remain in close approximation to very important structures.'

'The sac is now cut away at about half an inch exterior to the line of suturing in order to allow sufficient tissue for intra-folding the divided edges, which is done by a parallel suture introduced from side to side. The stump thus sewed across, the next important step in the operation is to anchor it firmly for the permanent support of the re-formed spinal canal, and reconstruct over it as strong supporting structures as possible. To effect this, the stump is closed down upon either side to the strong fascia of the quadrati muscles. Efforts have been made for the planting of periosteum for the purpose of reforming the spinal arches of the vertebræ, but with doubtful success. Generally the osseous structures are so wanting that it is very difficult to find the lateral arches and utilise them for any purpose. The more or less considerable superficial wound is now closed with buried animal sutures, the skin itself coapted in this way, and the wound sealed with iodoform collodion, reinforced with a few fibres of absorbent cotton. A wound so treated, if aseptic, must thus remain, and if non-infected primary union will supervene.'

He then describes the case of Miss B., aged 18. The spina bifida had hitherto been supported by an elastic sac. The tumour was not sensitive to touch or compressible. The circumference in its largest part was 29 inches, the measurement in the line of the spine was 19 inches, transversely 18 inches.

There was a distinct wave impulse, and the covering was very much thinned out upon the right side. She had slight club feet, with indrawn toes, but otherwise was normally developed (fig. 1).

The sketch from Dr. Marcy's figure shows the size of the tumour.



FIG. 1.

'I determined,' said Dr. Marcy, 'upon operation because of the increasing size and extreme thinness of the sac, believing rupture imminent. The patient gladly sought relief, as she was becoming morbidly sensitive on account of her deformity, and exercise was limited with an ever-increasing caution and fear.

Operation.—Operation performed Oct. 16 by Dr. Marcy, assisted by Dr. H. C. White, G. L. Amerman, and H. O. Marcy, Jr. Elliptical incisions were made through the skin upon the cyst-wall, and the flaps were dissected quite to the base upon either side, the pedicle being about three inches in diameter. Elevated the hips of the patient so that the spine was upon an angle of perhaps fifteen degrees, before opening the sac. The tumour contained one gallon of perfectly clear, colourless fluid, which was drawn off by means of a trocar. Specific gravity of fluid, 1010. Slight trace of albumen. A little to the right of the median line the cauda equina was spread out upon the wall of the sac, perhaps two inches in width. This I carefully dissected, and returned within the canal. The walls of the sac at its base were very much thicker than elsewhere. The opening was nearly three inches in length, through the two lower lumbar vertebrae. The base was closed carefully with a double continuous kangaroo tendon suture, and the sac was cut away. The cut edges were intra-folded by a continuous parallel suture taken from side to side. The base was then stitched carefully to the strong aponeurotic fascia of the quadrati-

muscles laterally. The union was entirely primary and the recovery rapid. For a day or two she complained of burning sensations in and twitchings of the feet. No cerebral disturbance. There was slight paralysis of the sphincters, which disappeared at the third week.

'At the time of writing, November 9, patient is up and dressed. The cicatrix is firm and not tender. Only a slight line marks the place of incision. She has been kept for the most part in the horizontal position, that the hydrostatic pressure of the fluid in the spinal canal may not dilate the consolidating structures. I find no case reported where the tumour had developed to such an extraordinary size.'

[The following copy of a photograph represents the case of a young woman, aged 20 (taken over twenty years ago), whose large tumour from spina bifida measured about the same as Dr. Marcy's case. Upon illumination it could be seen that large nerves crossed the sac, and became involved on the posterior and outer walls. She suffered from talipes varus, and one foot was ulcerated.

She was advised to be contented with support, but submitted to operation in some London hospital, and died from the operation.—Editor.]



FIG. 2.

Dr. Marcy quoted the records of a series of cases which had been dealt with by operation, commencing with some remarks by Sir Charles Bell, in 1791, suggesting such operation as possibly justifiable. Dr.

Marcy then recorded that Dr. A. Trowbridge¹ was probably the first to follow the suggestion of Sir Charles Bell.

With regard to a case by Mr. Mayo Robson, of Leeds, brought before the Clinical Society of London on March 27, 1885, it is remarked that he called special attention to the principle of closing the meninges by bringing together two serous surfaces, as in peritoneal surgery; to the great importance of employing the strictest antisepsis; to the value of this method in cases in which other forms of treatment are not available, as when the sac is thin or the opening into the spinal canal is large; and to the possibility of transplanting periosteum and its capability of surviving (he thought that periosteum from a recently amputated limb would give good results). In one case the sac was acutely inflamed, but complete removal with efficient drainage effected a cure.

Prognosis.—In operating upon young children we have to bear in mind that although we may succeed in curing the spina bifida, there is a certain amount of risk of the development of hydrocephalus.

Dr. Long Fox records such a case, and he has furnished us with an excellent photograph of the child.



FIG. 3.—DR. LONG FOX'S CASE.

There was no sign of hydrocephalus until after the spina bifida had been cured by operation.

¹ *Boston Medical and Surgical Journal*, vol. I. No. 48, January 23, 1829.

Also in a case recorded by Noble Smith in the 'Lancet' (February 1883, p. 183), the patient succumbed to hydrocephalus two years after a lumbar spina bifida had been cured by the injection of Dr. Morton's fluid. The symptoms of hydrocephalus developed after the cure of the spina bifida.

THE ORIGIN OF CANCER, ESPECIALLY REFERRED TO CANCER HOUSES AND CANCER DISTRICTS

It is now some years since Mr. Haviland published his work on the 'Geographical Distribution of Disease in Great Britain,' where he deals on page 286 (2nd edition, published in 1892) with cancer.

In that work Mr. Haviland showed by statistics that cancer was most prevalent along the courses of rivers which seasonally flood their banks, and especially when, from the flatness of the country, the floods are retained, the districts about the Thames and Severn and Mid-Devon and Yorkshire rivers being especially noted.

Mr. Law Webb wrote a paper in the 'Birmingham Medical Review' (vol. xxxii. December 1892) on the 'Etiology of Cancer,' in which he not only supported Mr. Haviland's contention—which, in fact, was incontrovertible—but he suggested the existence of 'cancer houses' and cancerous water or water supplies.

Mr. Samuel G. Shattock, in his Morton lecture on cancer at the Royal College of Surgeons, referred to these discoveries, and Mr. Haviland writes an article in the 'Lancet,' April 27, 1895, giving in full Mr. Law Webb's cases and some others, thirteen in all.

In case 1 six different people not related by blood to one another, except two who were sisters, but occupying successively the same habitation, succumbed to cancer.

In case 2 three people in like manner were attacked by cancer, and in the family history of none of the nine people was there any record of cancer. The same sort of histories pertain to the other cases.

In all these instances the residences have been in low damp situations, and the sufferers in most instances of these separate cases have used the same drinking water.

Mr. D'Arcy Power, in a paper read before the Oxford and District Branch of the British Medical

Association,¹ referring to Mr. Haviland's observation that cancer occurs most frequently where the soil is waterlogged, suggests that Mr. Haviland's conclusion would be of greater value if it could be corroborated by other than statistical evidence. This doubtless is so; but as yet the more scientific evidence regarding the causation of cancer is, upon Mr. D'Arcy Power's showing in his evidently well-considered paper, very vague and as yet almost nugatory, and so the statistical evidence assumes at present the only distinct facts we have to guide us.

The infectivity of cancer is a subject of deep interest, and Mr. Power gives a good *résumé* of the facts as at present observed.

Heredity in cancer.—It is too readily assumed—popularly—that cancer is hereditary, but in 1,719 cases recorded by Libert, Paget, Sibley, Siegriot, and Snow, and quoted by Mr. D'Arcy Power, the relatives were affected only in 13 per cent.

As an instance of coincidence showing the necessity of care in drawing deductions from statistics, we may mention the case of a married couple, where cancer carried off the father of the husband, who died of cancer of the rectum, the mother of the husband who died of cancer of the uterus, and the mother of the wife who died of cancer of the breast. Here there was no blood relationship, and the two families were living wide apart, and both in dry localities. These deaths happened some twenty years ago, and yet no cancer has appeared in the couple first mentioned or in their children.

Mr. Roger Williams, in 'Diseases of the Breast' (Bale & Sons, 1894), has collected many statistics on these points.

The origin of cancer.—Mr. D'Arcy Power, in referring to the probability of the origin of cancer depending upon a specific organism, adverts to the various minute appearances in the epithelial cells of cancer figured by various observers. 'A few only,' he states, 'can be traced, even in their broadest outlines, through the whole series, and many of those which appear to be common to all varieties of cancer are also met with in epithelial cells which have not been obtained from carcinomatous tissues. The appearances common to the largest number of observers are, as

might have been expected, the simplest. They are tiny circular bodies, varying in size, but many times smaller than red blood-corpuscles, found either singly or in groups, sometimes inside the cells and sometimes lying between them.

'The explanation of these bodies has yet to be obtained. It may be that such bodies are the result of some cellular change of which we are ignorant; it may be that they are peculiar to the epithelial cell endowed with those characters which render it cancerous. We have as yet no evidence that they are protozoa, we have still less reason to say that they are a cause of cancer. We can only state for the present that they are fairly constant appearances in those epithelial cells connected with cancer either directly as a part of its growth or indirectly as a result of grafting cancer upon epithelial tissues. Attention should therefore be concentrated upon these bodies, and an endeavour should be made to trace out their life history.'

Mr. Bland Sutton has summed up the chief points regarding the causation of cancer on page 496 of his recent work on 'Tumours.'

He considers that a comprehensive study of the histology of cancer indicates that the method of dividing it into three varieties—scirrhus, encephaloid (medullary), and colloid—is not only misleading, but the division has no structural basis. He objects to the interpretation of the structure of cancers from plane sections, without taking into consideration the relation of a given section to the entire tumour: hence a scirrhus cancer was said to be composed of an alveolar meshwork of fibrous tissue, the alveolar enclosing epithelial cells. The study of a number of consecutive sections will show that the cellular alveoli are sections of glandular acini and ducts filled with cells cut in various directions. Thus in cancer of the rectum epithelium-lined bays or recesses are found. These recesses, with their epithelial contents, are really greatly enlarged Lieberkühnian follicles cut in various planes.

He further states that there are many facts indicating that cancer depends on micro-parasites, and especially the circumstance that those glands which are in most direct communication with the air or intestinal gases are most prone to become cancerous.

Mr. Bland Sutton is opposed to the opinion that all varieties of cancer are due to one cause. He further considers that Cohnheim has disproved the idea that cancer can be caused by trauma.

¹ *British Medical Journal*, April 27, 1895.

CYCLING FOR WOMEN

Cycling is becoming a fashion for full-grown women as well as for girls has called forth criticism of all kinds and from all sources. One contemporary describes cycling in Battersea Park as merely a pastime, not an exercise, and very unfavourably compares it with riding on horseback for those who have the opportunity of choosing either one or the other.

Another newspaper gives a 'word of warning' to women not to stoop to their work, and to take it gently. And others enter into various details as regards health, elegance, and even propriety.

For English girls and women we believe cycling to be an excellent exercise—probably the best they can have—always supposing that extremes are avoided.

Before comparing cycling with other methods of exercise, we will state the general rules which we consider should be observed by lady cyclists.

A bicycle should be used, not a tricycle, because of the far greater ease with which the former can be ridden when once learned—and the learning is not difficult, even for adults or elderly persons.

In moderate riding on a bicycle there is far less chance of strain to the heart or other organs than with a tricycle. The machine should be carefully adjusted to the rider, so that she can sit in an upright position, and not have to stoop forward to reach the handles.

The seat should be sufficiently high to allow free play to the legs, and so avoid too high an action. The dress should be easy, but this does not at all necessarily involve dispensing with the skirt. Ladies should be strictly enjoined to avoid excessive length of journeys, climbing steep hills, and straining over wet and heavy roads, or against a strong wind.

Comparative value of cycling and other exercises.

Horse riding.—If there were any eloquence dormant in our nature, we think it might be developed in eulogising the delights of horse riding, and especially when putting the qualities of our steeds to the test by galloping them after hounds across a well-enclosed country.

Cycling can never impart the same exhilarating feelings, but it possesses advantages of its own.

As an exercise, cycling, we consider, is not only equal to horse riding, but is upon the whole superior.

It is far more convenient, even for those who can command both. The cycle is ever ready, can be taken practically everywhere, and put up anywhere. The rider can cover much longer distances and with less fatigue, and can combine his journeys with trips by rail in a manner which would be prohibitive with horse riding. Nothing is more fatiguing than riding home a tired horse.

Lawn tennis.—The exercise involved in this game is far more tiring, far more likely to lead to mischief from sudden strain or twist of the body, far more likely, in short, to do harm to the female internal organisation, than any ordinary cycling.

Golf.—This game involves too much standing and walking to be an ideal one for women. Doubtless many indulge in it without harm, but as compared with cycling we consider it inferior. Then, again, it demands golf links—which are not to be found everywhere, at least not yet.

Walking.—We need hardly compare these exercises, but may remark that many a young girl is harmed by the monotonousness and fatigue of thus using a limited number of muscles in long walks during her school life.

Rowing.—This exercise, very good in itself, is only suitable to particular occasions. A shallow boat should be avoided, as it doubles up the body too much. A dingey is best. In very hot weather boating is a very good alternative to bicycling, but even at such times the remarkable breeze created by a moderate pace on the wheels is very exhilarating.

Cricket is far better than tennis for girls, and is a gentler and much more ladylike game than many of us imagine. It is hardly inferior to cycling, but then it cannot be so universally put in practice.

Conclusions.—Upon the whole we are of opinion that cycling is one of the best and the most convenient forms of exercise for ladies. We have not compared it with the much-belauded Swedish and other systematic gymnastics, because an outdoor recreation can hardly be compared with one carried on, for the most part, within closed walls, and, moreover, we should always prefer that which partakes of a pastime, and encourages independence and self-reliance, to methodical, stereotyped, and uninteresting work in 'classes.'

We have not discussed the various statements made as regards possible harmful results to girls, because we think they are exaggerated, and that, with the necessary care which we have already remarked upon as necessary, no harm is likely to result.

In the 'St. James's Gazette' an article lately appeared written by 'A Medical Man,' in which it is urged that bicycling has a deleterious influence upon the riders by reason of the mental effort required for balancing. The writer states that this result is exemplified in the pale faces, anxious expression, and generally exhausted appearance of the young men who are to be seen riding almost everywhere. This appearance, he remarks, is not apparent among other classes, nor with those who ride tricycles.

We entirely disagree with this view. The bicyclist, when he has once mastered the art of riding his machine, has no more trouble in respect to balance than in most other active exercises, such as riding a horse, playing lawn tennis, or even walking. We are constantly balancing our bodies, and when any of us lose our full brain power, either from illness or inebriation, our powers of balance become 'conspicuous by their absence.'

That the majority of young men whom we see on the roads have the appearance described in the article referred to is probably owing chiefly to their ordinary occupations in shops and manufactories, and partly to overstraining themselves in a pastime which is the opposite of their daily work. The rider of a tricycle generally belongs to a class occupying a more easy position, or at least a position in which more out-of-door recreation is obtained daily.

However, we will allow that the ease with which a rider can glide along a good road at 12 or 14 or more miles an hour is very apt to lead him to undertake longer journeys than are conducive to health, and that the principle of moderation so important in respect to every kind of physical exercise is liable to be more often violated in using a bicycle than in almost any other pleasurable muscularly active occupation.

There is one further important point which we think requires attention, and that is the taxation of cycles. Before the moderate and respectable rider can enjoy his exercise in comfort and safety, every cycle will have to be taxed and registered in the same way that boats are now registered on the Thames, each carrying a number placed in some conspicuous position.

THE NATURE AND TREATMENT OF PERNICIOUS ANÆMIA

Dr. Ralph Stockman, Lecturer on Materia Medica and Therapeutics in the School of Medicine, Edin-

burgh, and Assistant Physician to the Royal Infirmary, writes upon this subject.¹

The object of the paper is to show that pernicious anæmia is not a disease in itself, but a high degree of anæmia following numerous remote or predisposing causes, bringing on degenerative changes in the blood vessels, thus producing capillary haemorrhages all over the body; 'and that it is the persistent and long-continued duration of these small internal bleedings, assisted often by larger external ones, which confers on certain cases of anæmia the fatal, or "pernicious," character of the illness.'

After discussing the question, Is anæmia a distinct disease? and second, What cases are to be regarded as 'pernicious' anæmia? and thirdly, The immediate cause of the condition, he then proceeds to consider—

The immediate cause of the condition.—The immediate cause has been set down by all writers hitherto, either to deficient blood formation or to excessive blood destruction. Dr. Stockman protests against the assumption of Dr. Mott and others that the liver and spleen have ordinarily any blood-destroying function. The liver as well as the spleen is the ordinary storehouse for the reserve physiological iron of the body.

The writer, in referring to a great many authorities, speaks especially of the researches of Dr. William Hunter, who holds that the most constant pathological feature is a large excess of iron in the liver, and that this distinguishes it, *post mortem*, from all other varieties of anæmia.

Then he gives his own views upon the nature of the disease. He considers the evidence convincing that pernicious anæmia follows usually on well-recognised debilitating causes, which causes, however, may be obscure. He does not believe in the theory of the destruction of red corpuscles by the liver, but that anæmia from any cause induces in some persons degenerative changes in the whole vascular system, which permit the occurrence of numerous minute internal bleedings, more rarely of external ones also, and that a persistent continuance of these leads ultimately to excessive anæmia and death. He then gives his reasons for forming this opinion.

Most observers have noticed the fatty condition of the heart, and degenerative changes in the capillaries and small vessels, and the internal haemorrhages are also generally acknowledged. Biermer, who first described these haemorrhages in the retina, refers to a patient dying in consequence of the enormous number of such capillary bleedings in the brain.

¹ British Medical Journal, May 4, 1895.

The hypertrophy of the bone marrow which so frequently occurs is now generally regarded as an attempt on the part of the great red corpuscle-forming organ of the body to cope with its excess of work and make up the blood loss. He believes that in many cases the red marrow gets exhausted from overwork, and as people get older they have less recuperative power in this respect.

He then endeavours to prove that these bleedings account satisfactorily for the characteristic symptoms of pernicious anaemia as usually distinguished from chlorosis and so-called 'simple anaemias.' These symptoms are : (1.) The extreme anaemia, along with a usually fat and well-nourished appearance. (2.) The yellow colour of the skin, blood serum, and fat. (3.) The excess of iron in the liver and other organs. (4.) The richness of the red blood-corpuscles in haemoglobin. (5.) The excess of urobilin, and probably of other pigments, in the urine. (6.) The fever.

(1.) **The extreme anaemia** depends upon the fact that much more profound anaemia is brought on by chronic small bleedings than by one or more large losses.

(2.) **The yellow colour of the skin, blood serum, and fat.**—This is due to altered haemoglobin dissolved in the blood serum. There can be no reasonable doubt that in pernicious anaemia the yellow pigment is derived from altered haemoglobin, and that it circulates in the blood stream.

(3.) **The excess of iron in the liver and other organs.** Iron, although usually too abundant in the liver in most cases of pernicious anaemia, is also found in great excess in other organs. It is hardly imaginable that the surface of the brain or kidneys has any special function as regards blood-destroying, and yet the excess has been found in these organs. The true explanation seems rather to be that the haemoglobin in the minute haemorrhages becomes altered and thus liberates in the circulation a large amount of iron-containing pigment. This is deposited in the liver and elsewhere ; and if the bleedings are numerous the pigment is taken up by many organs.

Evidence is then given to prove that the haemorrhages are the real origin of the excess of iron in the liver.

(4.) **Richness in haemoglobin of the red blood-corpuscles.**—The explanation is that the blood serum, liver, bone marrow, and other organs contain excess of iron, and hence there is plenty to draw on for the formation of new red corpuscles.

(5.) **The excess of urobilin and other pigments in the**

urine.—Urobilin is a derivative of haemoglobin. As it has been proved that urobilin is in excess during scurvy and blood extravasation, there is no doubt that it can be formed from internal haemorrhages, and this Dr. Stockman considers to be its origin in pernicious anaemia.

(6.) **Fever.**—The high temperature may depend in some way upon the blood conditions. It has been shown that animals rendered anaemic by bleeding are subject to feverish attacks, but the explanation of this has never been distinctly given.

Conclusions.—Having shown, therefore, that the ordinary phenomena of "pernicious anaemia," as distinguished from other anaemias, are explainable on the theory that it is due to excessive loss of blood by internal capillary bleedings, sometimes aided by external haemorrhage, I wish to point out, and this I think further confirms my views of its causation, that certain cases do not present some of what we have been asked to regard as the distinctive pathological changes. I refer especially to the presence of large amounts of iron in the liver and to the corpuscular richness in haemoglobin.'

After quoting instances which go to prove his point, he states : 'But the most striking evidence is to be found in cases of pernicious anaemia due to the ankylostoma duodenale, which are caused by external blood loss, the parasites sucking blood from the vessels in the intestinal wall of their host. That is to say, the anaemia is due chiefly to external blood loss, although internal capillary haemorrhages also occur from changes in the walls of the vessels consequent on anaemia.'

Health and Holiday Resorts

CHATEL GUYON

CHATEL GUYON is a watering-place which has only begun to be known to the medical profession and to the public during the last ten years ; hence time-honoured custom has no hand in its growing popularity. This depends solely on the nature of its mineralised waters, on its picturesque surroundings, and on its easy accessibility.

Situated in the department of the Puy-de-Dôme, which is part of the former province of Auvergne, the garden of France, Chatel Guyon lies 1,200 feet above the sea-level, on the slope of the Dôme

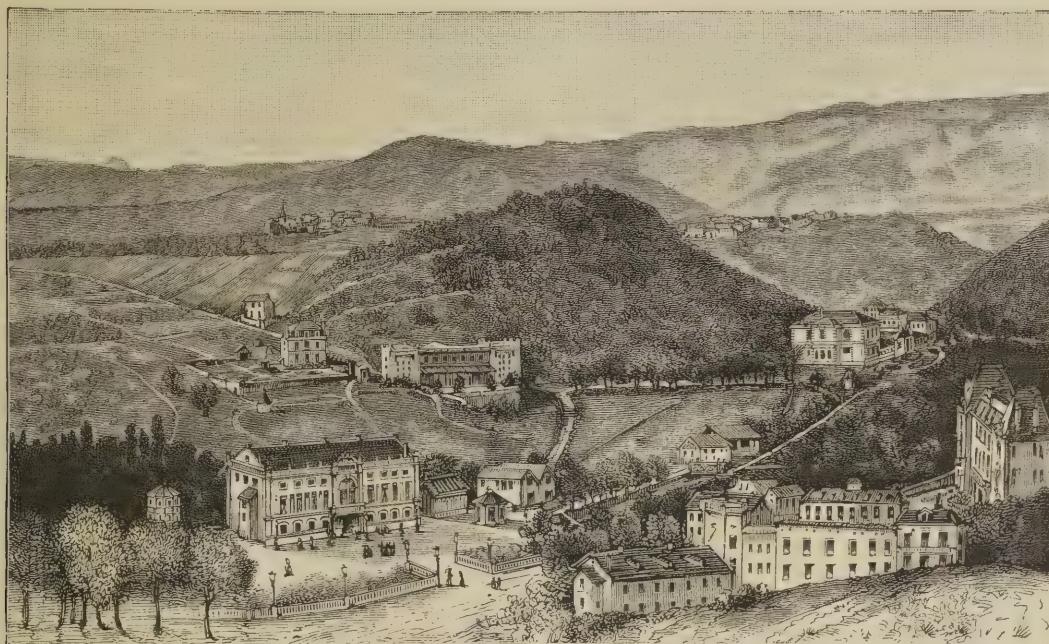
mountains as they descend to join the plain of the Limagne.

Its background, therefore, is formed by well-wooded hills which afford a great variety of shady walks available during the hot summer months, and which are continuous with the well-kept gardens belonging to Chatel Guyon proper. In these are situated the various springs, the bathing establishment, the bandstand, and the casino, with its theatre, restaurant, and card-rooms.

Flanked on two sides by hills, and on the third by

much greater importance from a professional point of view.

The mineral water apparently works its way underground from a higher level, and is arrested by an impermeable wall of rock at Chatel Guyon, and it is here that the water finds its way to the surface, partly by natural fissures in the rock, partly by borings. Owing to the dimensions, and to the more or less winding character of the outlets, the springs differ from each other as regards their temperature, their composition being practically identical.



VIEW OF BATHING ESTABLISHMENT (OLD BUILDING).

well-appointed hotels, the high-road leads downhill to the curious old town of Riom, the nearest railway station, at a distance of about four miles. All the trains between Paris and Clermont-Ferrand on the Paris-Lyons-Mediterranean line stop here, where omnibuses or carriages convey passengers to Chatel Guyon. An express train leaving Paris at 9.35 A.M. reaches Riom at 4.29 P.M.

Numerous excursions are easily made, either by train or carriage, and appeal not only to the lover of fine scenery, but to the geologist and antiquary.

We have only lightly touched on these subjects of general interest, as they are described more fully in any guide-book, but propose to give a more detailed account of the nature, composition, and therapeutic application of the waters, which are of

M. Magnier de la Source made a careful analysis of these waters, which we reproduce :

Elementary substances per litre

Carbonic acid	2·918	grammes.
Chlorine	2·1593	"
Sulphuric acid	0·3516	gramme.
Silica	0·1108	"

Metals per litre

Sodium	0·9035	gramme.
Magnésium	0·395	"
Calcium	0·6845	"
Potassium	0·0990	"
Lithium	0·0020	"
Iron	0·0128	"
Aluminium	Traces.	

The same author makes the following table of the

probable composition of the water in its natural condition :

	Per litre
Free carbonic acid	1·1120 gramme.
Chloride of magnesium	1·5630 "
" " sodium	1·6330 "
Bicarbonate of calcium	2·1769 grammes.
" " sodium	0·9550 gramme.
" " iron	0·0685 "
" " lithium	0·0194 "
" " potassium	0·2538 "
Sulphate of calcium	0·4990 "
Silica	0·1108 "
Arsenic	Traces.
Phosphoric acid	"
Boric acid	"
Alumina	"
Total mineralisation .	8·3914 grmms. per litre.

This analysis shows that the water is highly charged with carbonic acid in the free state and in

contrary to what is often asserted, are not purely purgative, the difference residing in the fact that they stimulate the organism to perform a function physiologically, whereas the purgative waters, such as Hunyadi Janos, Birmenstorf, &c., produce a pathological hypersecretion which is invariably followed by constipation.

With some persons in good health the Chatel Guyon waters may, in variable doses, produce repeated liquid evacuations. This action, however, is by no means constant, and is not the aim of the treatment. What is, however, invariably obtained is a gradual re-establishment of the normal functions of both stomach and intestines by virtue of its stimulating action on the muscular coat and the glands. This mode of action is proved by its efficacy in chronic forms of diarrhoea as well as in those of constipation.



NEW BATHING ESTABLISHMENT.

solution. Its constituents are numerous, and as a whole its composition greatly resembles blood serum. It shows, further, that its principal salts are the chlorides of magnesium (nearly 1·60 gramme per litre) and sodium, and carbonate of iron.

The springs vary in temperature from 75·5° F. to 101° F., for reasons that we have already described. We shall see further on the advantages arising from this factor.

The waters are used both internally and as baths.

Internal use.—Experiments made by Dr. Laborde and Dr. Baraduc on the dog have shown conclusively that these waters, chiefly owing to the chloride of magnesium, excite peristalsis, as well as hypersecretion of the stomach and intestines, the secretion and excretion of bile are increased, and, by the same process, the renal tubules, the bladder and uterus are stimulated. We deduce from this that the waters,

Baths.—The bath establishment contains about eighty well-appointed baths, besides a small swimming bath. Owing to the great quantity of mineral water (nearly two millions of litres in twenty-four hours) all the baths are given in running water, the water entering from below and running off all the time by an overflow-pipe fixed in the bath; in this way its action on the skin and peripheral vessels is equally maintained during the whole period of immersion. The bath can be given at temperatures varying from 87·5° F. to 95° F. without any artificial heat. The patient's body becomes covered with minute bubbles of carbonic acid gas, which on being brushed off show the skin to be of a uniform pinkish-red colour. Thus we have produced a soothing action on the skin and a stimulation of the peripheral circulation.

The sedative action of the water on skin and mucous membrane is further utilised by making local

applications, such as in washing out the stomach, or in douches to the vagina, rectum, nose, &c., as the case dictates.

Clinical experience and experimental research point to the following therapeutic applications :

1. **By virtue of its action on the skin and peripheral circulation**, it favours elimination by the former, reduces congestion of the viscera, and acts as a tonic to the nervous system ; hence it is useful in arthritic and herpetic conditions, especially if there is passive congestion of internal organs ; also in cases of chlorosis and anaemia with sluggish circulation. In cases like the latter, where a more powerful stimulant is desirable, the general douche of cold or hot water, for which every preparation is made, is an invaluable accessory to the bath treatment.

2. **The internal use** of the waters is indicated in a variety of affections of the digestive system, as we should expect from its principal constituents.

Affections of the stomach.—Most dyspeptic conditions derive great benefit from this treatment, more especially the atonic form with incipient dilatation, and in long-standing forms with erosions of the mucous membrane, and even the classical ulcer of the stomach, good results have been obtained.

Affections of the intestines.—In all cases of constipation where the cause is not mechanical, be it due to deficient secretion or to an atonic condition of the muscular fibres, these waters act slowly but with invariable and permanent success. Repeated purgatives or enemata act more promptly, but require incessant repetition and only aggravate the condition.

With the exception of children under seven years of age, and in tubercular and alcoholic enteritis, all chronic forms of intestinal inflammation obtain good results ; for example we may mention the lienteric diarrhoea observed in young women, also in recurrent typhlitis and appendicitis, where this treatment is especially indicated during the periods between the attacks.

Affections of the liver.—The treatment is beneficial : a. In cases of *torpid liver*, where the malaise and constipation are due not to organic change, but to functional disturbance (generally a diminished secretion of bile). Clinically we find that these patients have often lived in a tropical climate, the symptoms appearing on their return.

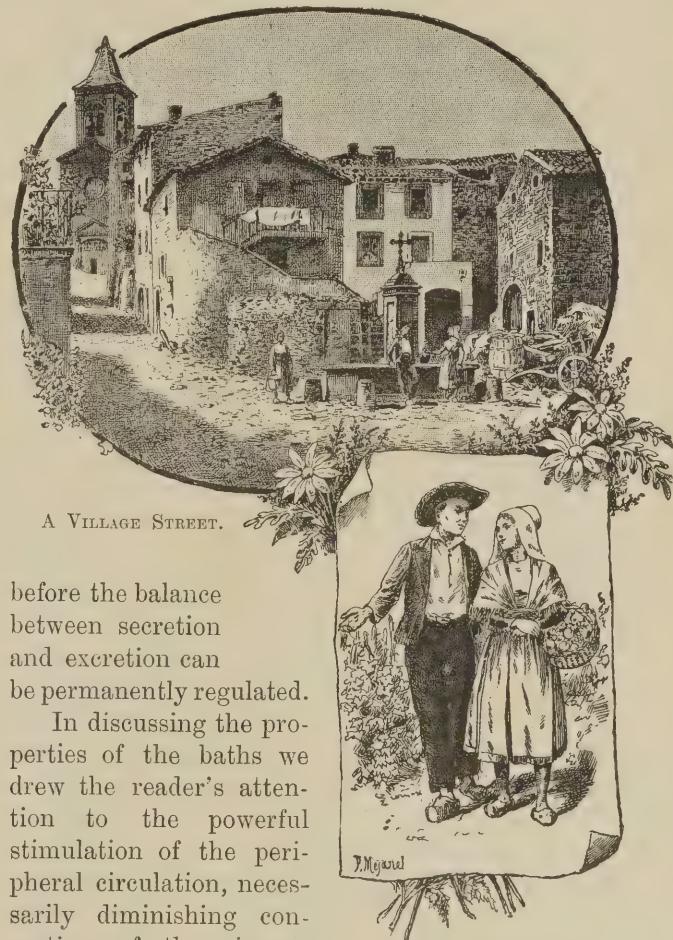
b. In cases of *biliary calculus*. Here, however, we have two factors to consider :

1. The formation of the calculi.
2. The deficient tonicity of the biliary canals.

It is in accordance with theory and practice to

stimulate the canals to contract powerfully in order to rid themselves of any foreign bodies, and only then to modify abnormal relations between secretion and excretion in the body, so as to prevent any further formation of calculi.

This stimulation is most powerfully obtained at Chatel Guyon by virtue of its magnesium chloride and the laxative properties of its waters. An after cure at Royat or Vichy fulfils the conditions necessary



A VILLAGE STREET.

before the balance
between secretion
and excretion can
be permanently regulated.

In discussing the properties of the baths we drew the reader's attention to the powerful stimulation of the peripheral circulation, necessarily diminishing congestion of the viscera. Clinically we find that this is true in cases of chronic metritis, salpingitis, or ovaritis.

The water, bottled and exported, acts in the same way as at the fountain-head ; the only difference noticeable is a diminished amount of carbonic acid gas and a slight deposit of the carbonates of calcium and iron. The lower temperature of the bottled water may give rise to indigestion if taken before breakfast, and as warming it is not advisable, it should be given in small doses. It can be got at the

AUVERGNE PEASANTS.

headquarters of the company, 5 Rue Drouot, Paris, where all further particulars can be obtained.

We have now only to take this opportunity of thanking Dr. Baradue for his kindness in showing us what was interesting, and for putting his publications on the subject at our disposal.

NOTES ON LONDON HOSPITALS

The new Operating Theatre at Middlesex Hospital.—The rapid advance of surgery during the last fifteen years, the enormous increase in operative methods in the treatment of disease, and the greater elaboration of surgical *technique*, have rendered it necessary to make important changes in many operating theatres of the older metropolitan hospitals. The Weekly Board of the Middlesex Hospital, in response to a recommendation of the surgical staff in 1894, decided to replace the old operating room by a theatre and accessory rooms, which should be adequate for the demands of the hospital and replete with every requirement of antiseptic or aseptic surgery. The general plan of the new structure was arranged by a joint committee of the lay board and the surgical staff, with the hospital architect, Mr. Keith Young. During the construction, and especially in the fittings, many difficulties were encountered and overcome, and the architect had, in the person of Mr. E. A. Fardon, the able and assiduous resident medical officer, an ever-willing colleague. The space at the architect's disposal has been made to accommodate a theatre replete with every improvement, a minor operating room, an anaesthetic room, a recovery room, and a private room for the staff. The fittings are teak, and the walls are tiled. Electric lighting is supplied throughout, with arrangements for the use of electric cauteries and batteries. The shelves are of glass, and the reservoirs for antiseptic solutions are of the same material. The sinks, wash-basins, and the like are of white ware, and handles, taps, shelf-supports, &c., are of gun-metal.

The great difficulty was connected with ventilation, on account of the crowded state of the locality. To meet this difficulty a very elaborate arrangement is fitted in the basement. The air is drawn in through an opening protected by a canvas sheet moistened by a spray; it then enters a filtering room and is passed through frames packed with cotton-wool; this removes gross mechanical impurities. The air is then drawn into

a chamber fitted with a multitude of hot-water pipes, and is afterwards conducted in any desired direction. The major and minor theatres and the anaesthetic room are fitted with signal gongs communicating with the basement. The ventilating machinery is worked by a gas-engine, and the incoming air can be excluded from a room, increased, or diminished as occasion requires. Thus, if the air in the theatre becomes offensive during an operation, the blast can be turned on and the whole air of the theatre changed in five minutes. In winter during fogs the method of filtering adopted will make the air in the theatre transparent when that without is opaque.

The heating apparatus consists of two boilers—a small independent boiler for supplying hot water to wash-basins, sinks, &c., and a larger boiler for warming the theatre and accessory rooms in cold weather.

This admirably conceived and beautifully executed series of rooms will interest many members of the British Medical Association, and arrangements will be made during July 31, August 1 and 2, at hours which will be duly announced, to throw the theatre open for inspection and describe the system of ventilation and show it in actual working.

St. George's.—An experiment has been tried here of locating the nurses a short distance—about half a mile—from the hospital in separate buildings, and as this has proved very beneficial to the nurses, it has been decided to build a permanent residence for them in Montpellier Street.

In accordance with modern requirements, two new operating theatres are being built in the place of the old-fashioned one now in use.

At University College there are many additions to the museum which will probably interest visitors, and Mr. Laurence, the curator, will be very happy to show them.

At the time of the meeting of the British Medical Association special demonstrations will be given in some of the departments. Professor Ramsay has kindly undertaken to describe his important work regarding Argon and Helium.

All operations during the week will be performed at 8.30 in the morning. The particular operations will be posted daily at the reception room of the Association.

City Orthopædic.—This hospital has a very large collection of interesting models in the museum, being records of cases treated in this institution. The surgical staff will attend on July 30 at 12 o'clock noon to give demonstrations and to perform operations.

LITERARY NOTES

Dr. Egerton Brandt, of Paris, has just published a reprint of the thesis which he wrote for his Paris degree. The subject is 'Paroxysmal Hæmoglobinuria,' which is dealt with in a very clear manner, setting forth all the important facts known regarding this rare malady.

Dr. Brandt considers that sudden cold is distinctly the cause of the affection. Most of the writers upon this condition mention syphilis as an accompaniment, and it would seem to be a question whether syphilitic individuals are more prone to it than others.

Dr. Brandt gives the records of a large number of cases upon which he bases his remarks, and ends by a bibliographical index.

He gives credit to Dr. George Harley for having first described this disease, and to Pavy, Gull, Merchison, Greenhow, Habershon, Laycock, Roberts, Wilks, Mackenzie, and Saundby for having also dealt with the subject.

Dr. Egerton Brandt is the son of the Dr. Brandt who is so well known at Royat and Nice.

Dr. William Armstrong of Buxton has reprinted his paper upon **The Treatment of Rheumatoid Arthritis** by galvanic and mineral water baths, which he published last November in the 'Provincial Medical Journal.' Dr. Armstrong informs us that further experience with this plan of treatment has convinced him of its great utility. We think this treatment is deserving of trial in all obstinate cases, and we all know how many cases of this disease are obstinate.

NOTES ON DIETETIC PREPARATIONS AND WATERS

Meat jellies.—The question is sometimes raised as to the comparative merits of beef tea and beef jellies made by manufacturing firms.

We think the former has its own advantages if thoroughly well made, but there is very considerable difference in the productions of different cooks. What the medical man requires is uniformity of strength and freedom from greasiness. As a rule, we should certainly prefer dealing with a well-prepared jelly from a good maker, and there are several in the market which can be relied upon. Brand's jelly has long been in use, and is a very reliable article of diet. We have recently also had occasion to try Curtis's beef

jelly, and can highly recommend it. We find that some of our contemporaries have analysed this jelly and consider it satisfactory. We rather found our opinion upon practical use. It is much liked by patients, and very restorative in its effects.

As all such foods are apt to pall upon the stomach, it is a good plan to alternate the preparations of different makers.

Friedrichshall Water (new spring).—It was recently reported that the spring from which this water flows was becoming exhausted as regards its saline constituents. This celebrated spring has been worked for upwards of fifty years, and its contents have been used in most parts of the world.

Geologists were consulted upon the subject, and they advised an attempt being made at striking the vein of deposits at some little distance from the old spring. This advice was acted upon, and after several borings had been made a new source was found, the water from which proves to be almost identical with that which came from the old spring.

A comparison of the analyses made, one by Professor Liebig in 1846, and the other by Professor B. Fischer, of Breslau, last year, is shown below.

PARTS IN 1,000

	Fischer, 1894	Liebig, 1846
Sulphate of Soda	5·9461	6·0560
" Magnesia	5·9624	5·1502
" Lime	0·7408	1·3456
" Potash	0·1707	0·1982
Chloride of Sodium	7·3112	7·9560
" Magnesia	4·7135	3·9390
Bromide of Magnesia	0·0072	0·1140
Carbonate of Soda	0·3168	0·0000
" Magnesia	0·0113	0·5198
" Lime	0·2193	0·0147
Carbonic Acid	0·2338	0·4020
Silicic Acid	0·0012	Traces
Oxide of Iron	Traces	Traces
Alumina	Traces	Traces
Total	25·6443	25·6955

It is said of this water that it is not apt to derange the stomach, or produce any unpleasant secondary effects, and that it does not necessitate the giving of larger doses after prolonged use.

The proprietors of **Vichy Water** have made a move in the right direction by reducing the price of their half-bottles, as the larger cost of this more convenient size was often a bar to their use.

A METHOD OF RESTORING PERSONS APPARENTLY DEAD FROM CHLOROFORM¹

By CHARLES A. LEEDHAM-GREEN, M.D. HEIDELBERG,
F.R.C.S. ENG.

WHEN there is cardiac failure the method of Professor König as modified by Dr. Maas, of Göttingen, has been found successful after the failure of other means.

'As originally practised by Professor König, the operator, standing on the left side of the patient and facing him, placed the ball of the thumb of the opened right hand upon the patient's chest, between the place of the apex beat of the heart and the sternum. He then repeatedly pressed in the thoracic wall with a quick strong movement at the rate of thirty times to the minute.'

'Dr. Maas was led, through the following incident, to modify this procedure in one particular, and thereby greatly to enhance its value. A boy, aged 9 years, whilst under chloroform for cleft palate, suddenly ceased to breathe; the pupils dilated, and the face became cyanotic. He was at once treated by Prof. König's method; but both pulse and respiration became gradually weaker until at length they stopped altogether, and the boy was considered to be dead. Dr. Maas, who had been compressing the thorax at the usual rate, on learning that the respiration and the heart's action had entirely ceased, became excited, and commenced to compress the chest wall very quickly and strongly (at about the rate of 120 to the minute), and in a short time was agreeably surprised to observe the pupils contract, and to detect faint attempts at respiration. Although the boy's life hung in the balance for fully an hour, during which time this quick compression had to be continued, in the end he recovered.'

Mr. Leedham-Green supplements this experience by his own, recording cases in which he succeeded by the more rapid manipulations after a cessation (for seven minutes) of heart beats and respiratory movements, and after Sylvester's method and complete inversion had been tried energetically and been given up as hopeless.

Guides to London.—It is probable that few, if any, of our readers will be ignorant of London and its neighbourhood, but to many of those visiting London

a guide-book will be useful. The most complete volume of this kind is Baedeker's 'London and its Environs,' an edition of which was published in 1894, price 5s.; and a very useful little book is Dickens's 'Dictionary of London,' 1s. and 1s. 6d. Both of these give excellent maps.

The Royal Academy pictures which we have noticed having a medical interest are the following:

No. 51. 'Dr. L. S. Jameson, C.B.', by Hubert Herkomer, R.A.

No. 511. The late Sir Andrew Clark, Bart., by Rudolf Lehmann.

No. 517. 'The late Professor Blackie,' by James Archer.

No. 553. 'Sir John Evans, K.C.B., D.C.L., Treasurer of the Royal Society,' by Robert L. Owtram.

No. 555. 'A. J. Rice-Oxley, Esq., M.D., M.A.', by Alexander Mann.

No. 1528. 'Proposed Seaside Convalescent Home for the East London Hospital for Children, Shadwell, E.'

Therapeutics

A salicylic acid ointment for gonorrhœal and other forms of articular rheumatism:

R. Acidi salicylici	.	.	.	.	.	.	5ijss
Lanolin							
Olei terebinth.							
Adipis	.	.	.	.	.	.	3ijj

(Bourget)

It is reported of this application that the acid is so thoroughly absorbed that it is afterwards found in the urine in large quantities, also that the local and general effects are most satisfactory. ('Therapeutic Gazette,' June 1895.)

Salicylic acid injected per rectum.—In 'La France Médicale' Dr. Erlanger describes this plan of administering salicylic acid:

R. Soda salicylat	.	.	.	.	.	.	3iss
Tinct. opii	.	.	.	.	.	.	mxxv
Aq. ad	.	.	.	.	.	.	5ijj

To be administered after the rectum has been first flushed out with warm water.

¹ Birmingham Medical Review, February 1895.

Nephritis following the use of mercurial inunctions in the treatment of syphilis.—At the meeting of the Dermatological Society of Berlin, December 4, 1894, Saalfeld ('Monatshefte für praktische Dermatologie, Bd. xx., No. 2) presented a case of nephritis following the use of, or aggravated by, the inunction of mercury in a case of syphilis. When the patient was first seen her urine contained 8 per 1,000 albumin. After taking five inunctions of 45 grains each, the albumin had increased to 60 per 1,000 urine.

In the discussion which followed, Heller reported two hundred cases of syphilis treated by the hypodermic injection of sublimate without a single case of nephritis, and Lewin said that had been his own experience, while he had seen nephritis occur in several cases after a few inunctions.

Mankiewitz had observed nephritis after the use of a mouth wash of potassium chlorate, which Lewin believes is always 'haemorrhagic,' while the variety following inunctions, in his experience, was always albuminuric. ('Therapeutic Gazette,' June 1895.)

For eczema of the face.—Carefully remove all the crusts. Avoid water. Keep the following ointment constantly applied to the lesions by means of a soft linen mask.

R. Ung. picis	5 <i>j</i>
Ung. diach.	5 <i>j</i>
Ung. zinci ox.	5 <i>j</i>
Mix. Sig. For external use.	

(Archives of Pediatrics, May 1895.)

Izal.—As a disinfectant for domestic purposes we consider this preparation to be unequalled by any other that we know of. No doubt it is also of considerable value in operative surgery, although it does not seem to us to be quite so suitable for this latter purpose as carbolic acid or mercurial solutions. However, Mr. Bruce Clarke has spoken very highly of its utility in surgical work, and we may therefore consider that its repute in this respect is already established.

Standard Malt Extract.—We have experimented with malt extract preparations and find the Standard Malt Extract very satisfactory from a practical as well as from an analytical point of view. It is clear, transparent, and free from that cloudiness which many malt extracts present. The flavour is agreeable, and its thin consistence makes it palatable.

This preparation contains a very large proportion of diastase, and consequently is very helpful in the digestion of starchy foods.

We quite believe that there is no adulteration of the malt from which it is made, and that the very best barley alone is used.

Dry Anti-diphtheritic Serum.—Messrs. Burroughs, Wellcome, & Co. have been the first to prepare serum in the form of fine golden-coloured scales. They state that the therapeutic activity of the contents of each tube which contains this dried serum has been tested by the medical director in charge of their bacteriological laboratory, and been found satisfactory. We would draw the attention of our readers to this preparation, and think there is sufficient evidence to warrant their giving it a trial.

Reviews

A Monograph on Diseases of the Breast: their Pathology and Treatment with special reference to Cancer. By W. ROGER WILLIAMS, F.R.C.S., late Surgeon Western General Dispensary, and Surgical Registrar Middlesex Hospital. With 76 figures. (London: John Bale & Sons, 1894.) Price 2*s.*

The editor of this work was for several years Surgical Registrar to the Middlesex Hospital, and during the long period he filled this office he published annually valuable statistics in relation to cancer. In the volume before us the results of these annual reports are presented *en masse*.

The following is an example of the author's style. In regard to the question, *Is life prolonged by operation?* he writes: 'Astley Cooper says, "The progress of this complaint is in some patients extremely slow. In general, however, it destroys life in about four years from its commencement." According to Paget, "The average duration of life from the patient's first observation of the disease is a little more than four years." ' In a similar way statements are quoted from Bryant, Sibley, Morrant Baker, and Gross; he then gives tables of fatal cases of breast cancer from the Middlesex Hospital records for a period of six years, and after an elaborate analysis comes to the conclusion that life is prolonged by removing a cancerous breast.

The book contains voluminous selections and cases from the writings of well-known surgeons in addition to masses of statistics collected from hospital reports.

In the chapters relating to the pathology of the breast the same method is adopted. The illustrations of the histology of mammary cancer are borrowed from Creighton, Nunn, Labb   and Coyne, Gross, Billroth, &c. Even the clinical figures, notwithstanding the author's opportunity of observing a very large number of cancerous patients, are

also culled from the pages of Billroth, Birkett, Bryant, Bramwell, and others. Indeed, of the seventy-six figures illustrating this book nearly seventy are borrowed.

Those who look into this book will be astonished at the assiduity with which Mr. Williams brings together figures relating to cases of cancer, and his industry in comparing them to find out the proportion of cases in which cancer attacks the left breast or the right; its frequency in the breast as compared with other organs; its ratio to the population; and a variety of comparisons too numerous to be particularised.

It may be stated that the chief feature of the book is statistics, and in this respect it must prove a valuable record for those interested in the history of malignant disease.

Surgical Diseases of Children, and their Treatment by Modern Methods. By D'ARCY POWER, M.B., F.R.C.S., Demonstrator of Operative Surgery at St. Bartholomew's Hospital, Surgeon to the Victoria Hospital for Children, Chelsea, &c. Crown 8vo, pp. 548. Price 10s. 6d. (London: H. K. Lewis.)

We cannot conceive a much more difficult task in medical literature than writing a work upon the surgical diseases of children which shall be upon the one hand short and practical, and upon the other sufficiently comprehensive. As far as these objects can be fulfilled we think that Mr. D'Arcy Power has succeeded.

There are few subjects, however, that are dealt with, or can be dealt with, exhaustively or even within the compass of a textbook on surgery. We doubt very much whether it is possible to write a satisfactory work upon this subject, and we think it would better serve the purpose in view if the special information required were placed in the form of addenda to various chapters in works upon general surgery. However, Mr. D'Arcy Power shows by his writing that he is master of his subject, and he has doubtless found it difficult to curtail his subjects sufficiently to be within the compass of the volume before us.

It is thoroughly up to date, and will no doubt prove useful in general practice and to students, and especially if used in combination with works dealing more fully with each individual subject.

SOME RECENT WORKS WHICH ARE WORTH ATTENTION

The Diseases and Deformities of the Fœtus: An Attempt towards a System of Ante-natal Pathology. By J. W. BALLANTYNE, M.D., F.R.C.P.E., F.R.S.E., Lecturer on Midwifery and Gynaecology, and on Diseases of Infancy and Childhood, School of Medicine, Edinburgh. With Plates. Volume II.: *Congenital Diseases of the Subcutaneous Tissue and Skin.* 1895. (Edinburgh: Oliver & Boyd; London: Simpkin, Marshall, Hamilton, Kent & Co.)

Infancy and Infant-rearing: An Introductory Manual. By JOHN BENJAMIN HELLIER, M.D. Lond. 1895. (London: Charles Griffin & Co., Limited.)

Clinical Lectures on the Prevention of Consumption. By WILLIAM MURRELL, M.D., F.R.C.P. 1895. (London: Baillière, Tindall, & Cox.)

Diseases of the Kidneys and Urinary Organs. Vol. I. By Prof. Dr. PAUL FÜRBRINGER. Translated from the German by W. H. GILBERT, M.D. 1895. (London: H. K. Lewis.)

La Thérapeutique des Tissus: Compendium des Médi-cations par les Extraits d'Organes animaux. Par le Dr. M. BRA. 1895. Paris: J. Rothschild, Editeur. (*Tissue Therapeutics: A Compendium of Treatment by Organic Animal Extracts.* 1895. By Dr. M. BRA. Paris: J. Rothschild.)

The Disorders of Speech. By JOHN WYLLIE, M.D., F.R.C.P. Edin. 1894. (Edinburgh: Oliver & Boyd.)

Traitemennt des Fractures par le Massage et la Mobilisation. (*Treatment of Fractures by Massage and Movement.*) Par le Dr. JUST LUCAS-CHAMPIONNIÈRE, Chirurgien de l'Hôpital Beaujon, Membre de l'Académie de Médecine, Président de la Société de Chirurgie. Demy 4to, pp. 584, 66 illustrations. Fr. 18. 1895. (Paris: Rueff et Cie.)

Dissections Illustrated. By C. GORDON BRODIE, F.R.C.S. With Plates drawn and lithographed by PERCY HIGHLEY. Imp. 8vo, 73 plates, 37 diagrams, with letterpress. Price 42s. 1895. (London and New York: Whittaker & Co.)

CLINICAL SKETCHES

AUGUST 1895

Congenital Cretinism

THE illustrations on the next page show the condition of a patient before and after treatment by thyroid extract. The case was first brought before the Eastern Ohio Medical Society in July of last year by Dr. West, and has been reported in a recent number of the 'Archives of Pediatrics.'¹

The child was $17\frac{1}{2}$ months old when first shown (fig. 1). She was the third of four children, the other three being boys. The eldest died, when six months old, of cholera infantum. The second child was four years old, and the youngest nine weeks. These were very healthy children. There was no history of any hereditary disease nor of goitre, nor was there any goitre in the vicinity. She was given desiccated thyroid gland of the sheep.

The case was again shown on January 8, 1895, after being under treatment for six months (see fig. 2). It will be hard, said Dr. West, for those who see her now, for the second time, to believe she is the same child.

The change in her condition was certainly most extraordinary and gratifying. She had taken about 300 doses of desiccated thyroid extract and two drams of glycerine extract of the sheep's thyroid.

Beginning on July 6, she took one-half grain of the powder twice daily. On the 12th one grain twice daily. She took this latter amount for five days, and on the third day began to be very cross and fretful, cried and was restless, slept poorly, and wanted to be carried most of the time, instead of lying quietly wherever she was put, as she did formerly. She sweated freely, vomited several times, and her bowels were relaxed. Dr. West saw her on the third day of this disturbance and stopped the medicine. Her temperature was 101.5 F. in the rectum. She was continually

squirming and fretting, and was sweating. Over the forehead and cheeks there were eighteen or twenty very hard papules about the size of pinheads. After four days these symptoms passed off and she had lost one and one-fourth pounds in weight. Three times afterward this same disturbance occurred, and each time the amount of the medicine had been increased too rapidly. The extract was always stopped promptly on the appearance of these symptoms.

On July 20 she was put on Crary's glycerine extract, one and one-half drops three times a day. After taking this two weeks she became feverish and fretful, and the dose was diminished, and stopped entirely from August 4 to 7, then was begun again and kept up until August 23. From this time until the present she has taken almost uninterruptedly one grain of the powdered thyroid twice a day. In the latter part of August she was sweating so profusely about the head, particularly when asleep, that only one grain daily was given during the first ten days of September, but as this had no effect on the sweating she was put back on the two grains. On October 15, and again on December 10, three one-grain doses were tried, but she could not tolerate this amount, and so two grains per diem only were given. For three weeks in July she took fluid extract of cascara sagrada for the constipation, after which she had no trouble with her bowels. On September 20 she was ordered five-drop to ten-drop doses of cod-liver oil and a small tea-spoonful of cream three times a day. This treatment was continued until the latter part of November, when it was thought best to discontinue it, as the sweating had ceased and she was becoming quite fat.

The child had not been under treatment quite four weeks before some improvement could be noticed. Her skin was not quite so thick and yellowish, her

¹ April 1895. We are indebted to Dr. West and the Editor of *Archives of Pediatrics* for the use of the illustrations



FIG. 2.



FIG. 1.

lips and tongue not so large, and her attention more easily attracted. During August there was a gradual and very perceptible change, and a new growth of hair appeared. On September 20 Dr. West noted that there had been a considerable growth of new hair which covered most of the scalp, was finer, and not harsh and wiry like the old, and on the sides of the head was a dark brown, much darker than on the other parts of the head. She began sitting alone the middle of November, and now can stand by holding to a chair. She cannot crawl, but it is surprising to see how fast she can go across a room by rolling over and over.

This table will afford an idea of her improvement.

	June 23, 1894	January 8, 1895
Weight	143 lbs.	22½ lbs.
Height	23½ in.	27½ in.
Neck	10 "	11½ "
Chest	15 "	19 "
Abdomen	20 "	21½ "
Circumference of head	16¾ "	19 "
Ear to ear	10 "	11 "
Nose to occiput	11½ "	12½ "

In conclusion, Dr. West acknowledged his indebtedness to Dr. George W. Crary, of New York City, for the interest he had taken and the suggestions he had made as regards the treatment of this case.

NOTES BY THE EDITOR

THE annual meeting of the British Medical Association in London has been a considerable success—a success not only on account of the number of members who have attended it and the brilliant social entertainments which have been provided for them, but also as regards the scientific work done in the sections.

A captious critic might question the success of the scientific work of this annual meeting, but he should not forget that science gains not only by discovery, but also by the dissemination of discovered facts.

If our various medical societies and our medical press give such rapid prominence to current medical work that very little of great importance is left to be brought forward at an annual meeting of the Association, it surely serves a useful scientific purpose to recapitulate such work, to bring forward new facts bearing upon it, and to apply that test of time which is always so desirable.

Sir Russell Reynolds referred in his presidential address to 'those who speak because they have something to say, and not because they want to say something,' and it seems that at most of the numerous sections the speakers of this class were in larger proportion than usual at such meetings.

During the early stages of preparation for this meeting the president expressed his desire that the scientific aspect of the meeting should predominate and the social be kept in the background, and although the executive could not interfere with private hospitality, they arranged that no excursion, except for a scientific object, should take place during the working days.

The full attendance at the sections was probably greatly due to this arrangement, for, as a rule, at these gatherings the work is apt to be neglected when social entertainments are numerous and attractive.

The 'Times' (of August 3), referring to this point, remarks that 'doctors are so habitually hard worked that it can be no matter for surprise if the social attractions of the occasion appeal to them somewhat more strongly than those of a purely scientific character.' Without quite endorsing this view, I think the time has come when, considering the increasing numbers of the British Medical Association, some care will have to be taken that these meetings do not degenerate into nothing more than huge and unwieldy picnics.

There is a growing opinion among the members that one of the first reforms in this direction should be the abolition of the annual dinner.

For some years past the number of members attending the annual meetings has been far too large for the successful accomplishment of a general dinner, and it is asked what useful purpose does this dinner serve. It is difficult for those who are not quite close to the chair to hear the speeches, and it is impossible, or at least has generally been found so, to provide a dinner for so many in a comfortable manner or even in an eatable form. If dinners must continue as part of the routine of the meeting, it would be better to divide them up into different sections, like the Colston dinners at Bristol, or they might be held under the different sections of the meeting.

Medical men have the reputation of being good speakers—as regards the character of their speeches—but they very commonly fail in making themselves

heard in a large room. It seems, that the more eloquent or learned the speaker, the less effort does he make to convey his words any farther than the first few benches, or, if he does make the effort, it generally fails most lamentably. Why is this? Simply, I believe, from want of training.

Every man who aspires to take part, or whose duty it is to take part, in public functions, or who has, in any capacity, to address large assemblages of people, should study elocution. It would save a large number of people a great deal of disappointment and annoyance, and would greatly add to the success of large medical meetings.

A portrait of Sir Joseph Lister, painted by Mr. J. H. Lorrimer, has just been presented to him by past colleagues and pupils upon his retirement from King's College Hospital. Occasion is being taken also to present Sir Joseph's portrait to the Royal College of Surgeons, and a committee has been formed, by whom is not very apparent, to collect subscriptions to defray the expense of having the portrait painted. Mr. Ouless is the artist selected, and he will probably produce a good likeness, but those who are now asked to subscribe have had no choice in the selection of the artist or in any other part of this undertaking. Doubtless the action of the originators has been prompted by the best of motives, but it seems to me altogether a mistake. What is wanted is a memorial founded on the broadest basis, in which not only members of the medical profession, but the public generally, should be asked to take a part and subscribe liberally. For undoubtedly it is the world in general which has benefited by Sir Joseph Lister's researches. He has done more for surgery than any one surgeon of any age, and instead of leaving the substantial recognition of this fact until his period of activity has passed, we should at once commence to raise a fund which ought to reach a sufficient sum to found a memorial which will last to all ages.

One of the most interesting of medical writers of to-day is Sir James Crichton-Browne, and the summary of his Cavendish lecture which is published in this number (p. 43) will be found very good reading. In that lecture he suggests that a 'dreamy mental state' in which the idea occurs that some incident has happened before in our lives is sometimes the fore-runner of an epileptic seizure, and therefore should be viewed with suspicion by the doctor.

With all due deference to so astute an observer, I would ask whether he does not attach too much importance to these ideas? The healthy, robust mind may be free from all such wanderings, but does not such a passing thought occur to hundreds of thousands of jaded brains which never will develop the *petit mal*?

Then, as regards the strong desire to throw oneself before a passing train, or down a steep precipice, is not this idea common to many people who are in no way epileptic or likely to become so? Is not this latter feeling, at least, one which may be classed as simple nervousness, due to our appreciation of the danger? The sensation of a desire to throw oneself down from a height is, I believe, common to a large number of adults, without any incipient epileptic seizure being 'in the air.'

However, Sir James is doubtless right in looking 'on all departures from the soundest state of mind as warnings' to us that the machinery of our brains is getting out of order, and if, when we feel such symptoms, or at least find them on an increase, we were to knock off work and take a holiday, or adopt such other remedies as might suit our own particular case, many a premature collapse of body or mind might be averted.

Resolutions passed at the Annual meeting of the British Medical Association.—The following resolutions, among others, were passed by large majorities at the recent Annual Meeting of the British Medical Association in London :

Proposed by Mr. TAIT.—That we, the members of the British Medical Association, while anxious to improve the training and supervision, and, if need be, to support, a practical scheme for the registration of medical, surgical, and midwifery nurses, emphatically condemn any proposal which has for its object the formation of a class of medical, or surgical, or midwifery practitioners other than those recognised under the Medical Act, 1886, as now existing.

Proposed by Dr. ARTHUR WELSFORD.—That it is to the interest of the public and of the medical profession that the Council of the British Medical Association should take power and authority to protect both the individual and collective interests of the medical profession, and that the Council be requested to take such steps as may be necessary to enable it to actively undertake these duties, and to devote a portion of the income and funds of the Association for these purposes.

Proposed by Dr. BEDFORD FENWICK.—That in the opinion of this meeting it is expedient that an Act of Parliament should, as soon as possible, be passed providing for the registration and education of medical, surgical, and obstetric nurses; and the Council of this Association are therefore requested to consider this matter, and to take such measures as may seem to them advisable to obtain such legislation.

Original Papers

WARM SALT BATHS IN THE TREATMENT OF NIGHT-SWEATS IN PHTHISIS

BY LOUIS VINTRAS, M.D., B.Sc.

Physician to the French Hospital, London

THE treatment of night-sweats in phthisis is a question which has received much attention from the profession at large during recent years, but the result as yet has not been highly satisfactory; many drugs have been proposed and tried in turn, and though some have proved successful in isolated cases, none have met with lasting favour.

Seeing the failures of internal remedies I naturally sought another field of investigation. Bearing in mind the beneficial action of saline baths on the scrofulous diathesis generally, and imbued with a firm belief in the direct association between scrofula and phthisis, in the light of cause and effect, I determined to try what influence such baths might have in improving the condition of patients suffering from consumption.

The result was the finding of an almost sure means of checking the night-sweats of this disease, and, moreover, as anticipated, of determining in each case an amelioration of the general condition, so marked as to encourage me in calling particular attention to the use of these baths. I cannot do better than give simply the following cases among those in which these saline baths were tried.

C. R., aged forty, a cook, was admitted to the French Hospital on August 24, 1894, suffering with advanced phthisis; both lungs being affected, with signs of cavities at both apices. He was in a condition of great exhaustion and was much emaciated. He could not leave his bed, and could only take such light nourishment as beef-tea and eggs beaten up with brandy. The night-sweats were so profuse that the patient's sheets had to be changed during each night, thus increasing the sleeplessness and weakness. On August 29 he was ordered to have two warm saline baths a week, each bath to contain four pounds of sea salt. In a fortnight the sweating had so far diminished that the patient could sleep comfortably, and the blankets in which he lay—sheets having been discarded—were hardly moistened. The baths were increased to three a week, and by the end of September his general

condition exhibited marked improvement: he was able to remain up part of the day, his appetite was better, and he was put on ordinary diet. The night-sweats had disappeared. His condition, however, was too far advanced for there to be any hope of improvement in the local symptoms. By October 15 he felt so much stronger that he desired to leave the hospital, and did so against advice. Even in his serious condition the patient had gained two pounds during his stay in the hospital.

I. H., aged thirty-two, a painter, came to the out-patients' department on December 5, 1894. He had been coughing for two years, and had spat blood on several occasions. The cough was then very hard and troublesome. There were signs of trouble at the left apex, with dulness and increased vocal fremitus over the upper part of left back and sharp pains on the left side. He was often sick after food, and the night-sweats were very troublesome. For the last-mentioned symptom he was ordered two saline baths a week. From the first the perspiration began to diminish, and by the end of December had almost disappeared. His general condition improved rapidly, and from the end of January he ceased to attend the hospital. He returned in June 1895, having been comparatively well since, with a slight reappearance of his symptoms, and among others of the night-sweats, which latter disappeared under another course of saline baths.

G. M., a Greek, aged twenty-seven, a sponge-worker, came among the out-patients on November 17, 1894. He had been ill for nine months, spat blood six months previously, was losing flesh, and suffered much inconvenience from night-sweats. There was deficient entrance of air at the right apex, and also a marked patch of dulness at the lower right scapular region. There were râles present on auscultation in the upper part of left lung and much pain in that side. The night-sweats diminished rapidly from the time he began the baths, and by the beginning of December had entirely stopped.

A. D., aged twenty-seven, a cellarman, was admitted to the French Hospital on May 14, 1895, with marked phthisis complicated with bronchitis. When the latter had subsided he was enabled to begin a course of saline baths for the night-sweats, which were profuse. He began on June 12, and when he left the hospital on July 1 this symptom had disappeared and his general condition had undergone marked improvement.

A CASE OF RAYNAUD'S DISEASE WITH INTERSTITIAL KERATITIS

By GEORGE WHERRY, M.C. CANTAB., F.R.C.S.

University Lecturer in Surgery; Surgeon to Addenbrooke's Hospital

Among a collection of twenty cases of hereditary syphilis shown to the visitors who came to Cambridge for the first week in July, the brief hour at my disposal did not enable me to do justice to the complications and disorders associated with syphilis, proved by condition of the teeth and eyes to be hereditary, and the cases were selected chiefly to show disorders associated with interstitial keratitis. The teeth in many of the cases showed, not only the pegged and notched condition of the permanent upper central incisors, but the remarkable bite which rendered the incisors functionless, because of a *vertical* separation, and not that the teeth were separated by an underhung lower jaw or by a protruding upper jaw (*palisade anglaise*). This vertical separation, in two cases, would have permitted the finger to be placed between the incisors in the middle line; in others a pencil or a piece of paper could not be bitten when the teeth were clenched. This remarkable bite depended upon dwarfing of the jaw as well as of the teeth.

It was remarked that suppuration and ulceration in the *cornea* were rare in this disease. One such case, however, was brought forward, in which a central perforation had taken place in the cornea. The eye was by no means lost, the anterior chamber having reformed with a good pupil behind, and a pyramidal cataract on the lens capsule. On the other hand, ulceration of *skin* and soft parts was shown to be very common, and sometimes terribly severe. Examples of loss of nose, holes through the hard palate, and extensive ulcers of skin of limbs, were exhibited.

Deafness existed in several cases, and seemed harder to cure than the keratitis.

A boy was recovering from chronic synovitis in both knee-joints, which had taken several months to subside, though he was treated as an in-patient during the worst of the attack.

Another case was one of entropion from granular lids of severe type, also complicated by ulceration of the legs. The everted upper lids had an appearance as of condylomata, and it was hard to say whether the vascularisation of the cornea was to be called 'pannus' or 'salmon patch.'

The most interesting and rare case was that of a boy, Jacob B., aged fourteen, who came to Addenbrooke's Hospital on account of his eyes in December last. The right eye was then so blind as not to see shadows, appeared of a deep salmon colour everywhere, and there was a general bulging of the cornea and ciliary regions. The tension was decidedly below normal. The colour was due to vascularity; fine vessels had invaded the cornea and softened and swelled all the tissues visible. The left eye was rapidly following suit, but here the pupil could just be seen, and was not influenced by either atropine or eserine.

The permanent upper central incisors were characteristic of hereditary syphilis.

The lad had large, spade-shaped hands; the fingers appeared enormously swollen. The toes and feet were similarly affected. The tips of the ears were also enlarged, and marks of ulceration remained on one of them. The nose and lips were only slightly thickened. There was a look of oedema in the hands, but no pitting on pressure. His aspect was feeble and flabby, and he walked in a shuffling, bent-up manner.

The mother, finding he did not improve as to his eyes, took him from the hospital in a few days, but was persuaded to carry out a plan of treatment with small doses of mercury. When he again appeared, in July, the vascular condition of the eyes had nearly disappeared, and was replaced by the ground-glass look of the cornea so common in hereditary syphilitic keratitis. The ciliary congestion was absent and the pupil of the right eye was just becoming visible. In the cornea fine vessels could be seen easily with focal light. The eyes were very much better, as also was the boy's general state.

With reference to his previous history, his mother told us that his general illness began as a baby of two years old, that cold weather aggravated his condition, turning his hands and face blue and cold.

If he was allowed to get a chill he had attacks of shivering, followed by a sensation of great heat and profuse perspiration. The urine first passed after those attacks was always dark coloured, like coffee. This last winter had proved very trying, his lost eyesight adding to his troubles.

When three years old he was taken to Great Ormond Street Children's Hospital, and was under the care of Dr. Abercrombie, who took great interest in him, and very kindly sent me a paper on Raynaud's disease,¹

in which appears an account of Jacob B. and his condition in 1884, 1885, and 1886.

He is the sixteenth child, was born at full time, and was a big baby. There are only three living besides him, viz. the third, fourth, and fifth. Dr. Abercrombie elicited from the family doctor that the father had had syphilis, and Jacob had manifestations at two years old.

His attacks were provoked by exposure to cold, so that often after a journey he was in a very suitable state for clinical investigation. Thus, in May 1885, it was noted: 'His mother said he had got through the winter pretty well, not having had many severe attacks, but to-day she had not brought a hot bottle with her as usual, and the child had got very cold on the journey. His hands were extremely dusky, cold, and swollen, and his feet were also very cold, and he took longer to get warm to-day than I had ever known before. His hands, at all times big, were literally enormous to-day. I examined some of the urine passed whilst he was in this state, and it was highly characteristic of paroxysmal haemoglobinuria.' 'He did not seem all right after an attack until he had passed his water,' also he was 'always bad in his inside after an attack.'

Looking on interstitial keratitis with typical teeth as certain proof of hereditary syphilis, it is interesting to note this case of Raynaud's disease.

In considering the effect of cold in syphilitic cases, I notice that, in referring to Dr. Egerton Brandt's thesis on Haemoglobinuria, 'Clinical Sketches' for July remarks: 'Dr. Brandt considers that sudden cold is distinctly the cause of the affection. Most writers mention syphilis as an accompaniment, and it would seem to be a question whether syphilitic individuals are more prone to it than others.'

THE TREATMENT OF GOUT BY BARIUM WATER

By WALTER C. BLAKER, M.R.C.S., BOGNOR

I am not inclined to discuss the pathology of gout, nor to offer an opinion as to the uric acid or any other theory regarding this ailment. All that I propose to do is to give my individual experience as regards treatment.

Having suffered from gouty inflammation in various joints, it is hardly necessary to add that I have adopted a variety of methods of treatment, with

more or less inconvenience, and with a decided absence of satisfactory results, until I was induced to visit the Llangammarch Wells in central Wales. From the treatment carried out at this place I have been so greatly benefited that I now record my experience.

During the past two years, after three severe attacks of influenza, I began to experience pain and stiffness, with slight swelling in both knee-joints, and pain on rotating the right shoulder, where a decided creaking could be felt. There was great languor and restlessness, loss of appetite, feeble circulation, and, as a legacy from the influenza, headache, backache, nervous prostration, and a general feeling of being fit for nothing. I had great difficulty in getting through my professional duties.

Having a decided gouty and rheumatic tendency, I feared this condition would terminate in rheumatoid arthritis. I endeavoured to keep these symptoms in check by strict attention to diet, avoidance of beer or wine, substituting for them whisky and potass or lithia water, and Bulmer's Hereford cyder, the cherry Permain brand, and trying the usual remedies—potash, colchicum, salicylate of soda, &c., with a wineglassful of Franz Josef water night and morning.

In July 1894, my symptoms not being much relieved, and pain in the left knee being more severe, I decided to try change and other treatment; but I first went on a visit to friends in the New Forest, where I indulged in otter-hunting, and allowed my keenness and zeal to outrun my discretion, and was frequently in the water. The result was a marked increase of pain in the knees. I then decided to go to Buxton for a course of treatment, and after ten days, having a bath each other day, I found some relief from pain and stiffness, but the depression of spirits was almost unbearable, and, acting on the advice of the local doctor, under whose care I had placed myself, I left off all treatment and went away for a week.

On returning I had five more baths and felt better in every way, and left fairly satisfied with the result.

I kept fairly well for about six weeks, but could not shake off the feeling of lassitude and prostration that was generally the result of a morning's work—the knees were still stiff and uncomfortable.

Acting under advice, I took a course of vapour and electric baths with massage. This treatment I kept up every ten days or so for over six months, with a certain degree of benefit, though the punishment

I had from the electric current was most severe ; the pain in the joints gradually became less, though I still experienced pain on going up or down stairs.

The stiffness in the shoulder was practically relieved in February 1895, when I had another attack of influenza and was laid up a week, and shortly after returning to work I had a return of all the old symptoms worse than before, getting but little relief from the vapour and electric baths. I purposed going again to Buxton, but, noticing an account of Llangammarch in the 'British Medical Journal,' and not having been in Wales, I decided to make a trial of the barium baths and water, and, I am glad to say, with the most gratifying results.

I arrived on May 9 at the Lake hotel, and on the following morning commenced a course of baths, taking one each morning at 90° F., and drinking three or four tumblers of the water during the day. After the fourth bath I felt decidedly better, and had less pain in the joints ; the next day could walk with greater ease uphill, though the stairs were still a trial. After the sixth bath I took a walk upon the hills, feeling very little pain, and was able the next day to walk upstairs without any inconvenience.

I left on the tenth day, and since then have felt absolutely well, with the exception of occasional attacks of lassitude and nervous prostration.

Doubtless the change of climate to a situation where the air seems to be exceptionally pure, fresh, and invigorating, and to a country upon which Nature has bestowed with no niggard hand quite a wealth of beauty, may in itself have helped to cure me of my troubles, but I may say that similar changes hitherto to other places only somewhat less salubrious have not had the same effect as that of Llangammarch and its barium water.

From my observation while residing at this health-resort, I should think that there are many disorders, such as those of the stomach, and especially when associated with cardiac pain, and even cases of absolute heart disease, which would derive benefit from the treatment. It seems to me, however, that the cases most likely to obtain good results are those of gouty and rheumatic tendency, liver and kidney derangements, strumous diseases, and glandular enlargements.

The characteristic feature of the water is, of course, the large quantity of barium chloride it contains. This exceeds six grains per gallon, and I believe it is to be found in no other water in such quantities.

Although this salt given in a crude form has been followed by unpleasant symptoms, this seems never to be the case in its natural state, no harm ever having resulted in taking the water in reasonable quantities. One tumbler is a sufficient dose at one time, but it may with advantage be repeated three or four times a day, and is best taken between meals.

The baths can be taken every day, and do not produce any depressing effect, but rather the contrary, for one feels braced up and refreshed afterwards. These baths may be taken cold, provided that the patient has powers of reaction, or at a temperature of 88° to 90° F.

From what I observed I am quite convinced that in the barium baths and waters we have a most valuable ally in the treatment of many disorders for which patients are now being sent to foreign watering-places, often at a great cost and inconvenience to them. Should I have a return of my old gouty or rheumatic troubles I shall certainly revisit the place.

I have always felt very strongly the importance of some surroundings to a health-resort which will keep the patient's mind occupied, and I believe this is more thoroughly realised on the Continent than it is in this country. Pleasant gardens, excellent music, casinos, and a variety of entertainments are provided for the visitor in France and Germany ; but in England nothing but a meagre entertainment is to be found as a rule, and often the surrounding country is nothing very different to what the patient has been used to previously. At Llangammarch one meets with many natural advantages. Those who are strong enough may wander for miles along the river-side and through the peaceful valley, in which the scenery is remarkably varied. If they can climb a little there are the surrounding hills, a thousand or more feet high. The hotel is most charmingly situated on the slope of a hill about 600 feet above the level of the sea, and commands from its windows charming views of one of the most beautiful valleys in this picturesque district.

It is home-like and comfortable, and every attention is paid to visitors, and their comfort and convenience is considered in every way. The sanitary arrangements and water-supply of the hotel and pump-house have been carried out by Messrs. Doulton, and this ought to be a guarantee of their efficiency.

There is no lack of amusements—fishing, golf, shooting, boating and lawn-tennis. The fishing in the Irfon, a tributary of the well-known river Wye, is

excellent. Two miles of this are reserved exclusively for the visitors to the hotel, and when the river is in good order a fair basket of trout may be taken. Probably the trout-fishing is best in April and May, but in September, which is one of the best months to go to this place, salmon may frequently be caught.

The golf links are only five minutes' walk from the hotel grounds, and the course is a very sporting one, with good natural hazards and very fair lies, the grass being mostly old, short turf. At present, however, it is only a six-hole course.

For the enthusiastic sportsman who will not shirk a hard day's work there is the privilege of wandering over about 2,000 acres of mountain and moor, both fields and wooded copses, and if he has a couple of good spaniels with him and is a fair shot, he may have a very enjoyable day's sport, provided he is content with a mixed bag of, say, fifteen to twenty head of game.

With all these advantages Llangammarch seems a most desirable place for those seeking thorough rest and change, even when no special treatment is required.

Public Health

The water famine in East London.—The engineer of the London County Council confidently asserts that he has discovered the cause of the scarcity of water in East London. The company's pipes have been so shattered by frost that only a portion of the supply flowing from the waterworks reaches the consumer. This means that East London is not only getting insufficient, but in all probability polluted, water. There is no hydraulic principle better established than that of 'lateral suction.' If a pipe is cracked sufficiently to let water out, a stream of flowing water, even though the stream exerts much lateral pressure, causes a suction at the edges of the opening or crack, and foul matters are liable to get into the pipe. A favourite lecture-experiment showing this is to attach a long glass tube to the water service, to file a pinhole in the course of the tube, and then to 'jacket' the neighbourhood of the pinhole with a little blue aniline ink. Directly the water is turned on and flows down the glass tube, a fine stream of water issues from the pinhole, but at the same time the blue is drawn into the pipe; the greater the pressure the greater the suction. There can be little doubt but

that both the gas and water mains of towns should never be buried in the ground, but carried in subways, so that a leak can be directly detected and the pipe repaired without meddling with the surface of the road. If Mr. Binnie's contention is correct, a series of analyses from the various standpipes should show differences of composition, for necessarily some of the foul subsoil water must get into the mains where defective.

The 'household refuse' nuisance in the Metropolis. Of all town nuisances, that of so-called 'dust' at this time of the year is most in evidence. The statutory duty of each local authority in the metropolis is to collect the dust at least once a week; but even when this duty is properly performed everyone knows that a six-day interval in summer-time must produce putrefactive changes in the animal and vegetable matter that necessarily forms a part of household refuse.

In certain business streets in the City, and in a few favoured localities, the collection is daily; it is a 'curb' or 'pail' collection. The dust is put outside every morning before 9 A.M., and the dustman empties the pail. This, indeed, is the one and only method of collecting household refuse that should be practised; it is the ideal state—the prompt removal of all effete matters. Of course the dustmen disapprove, for it is destructive of 'tipping.' All in the employ of a dust contractor expect to be 'tipped,' and although they are not allowed to ask for the 'tip,' there are silent but effectual ways of demanding such gratuities, and also effectual means of punishing the 'non-tipping.' Theoretically, a 'curb' system of dust-collecting should be not much greater in cost than a 'house' collection. When one considers that the dustman has to ring or knock, to wait a minute or two at each door, to descend a long flight of area steps, and often to walk some yards to the dustbin, and then to make several journeys backwards and forwards to his cart, it will at once be evident that every single weekly collection consumes a considerable amount of time. Whereas a row of zinc pails on the curb is emptied almost as fast as a slow walk. Nevertheless, when it comes to the contracting, the price for a *daily curb* as against a *weekly house* is something very large, and mostly frightens the average vestryman. The only way is, without a doubt, for the vestries to do the work themselves, and to get rid of the contractor. At present the public pays too little in the compulsory rate for the collection of dust, too much in 'tips,' the voluntary rate. If any householder likes to calculate out

the proportion of his own rate that goes in dust-collecting, he will find that he could not for the same sum get the refuse removed from his house for a single month, let alone a year. To obtain a better collection of the dust the householder must expect an increase of his rate and accept it cheerfully, for a daily collection will vastly increase health and the comfort of living.

The Metropolitan 'street-stink' nuisance.—In summer there is a peculiar faded sour smell pervading almost every street in the metropolis; here and there, in the neighbourhood of a gully or an overfull dustbin, this odour culminates to a stink. The wood pavement as a rule smells worse than the granite, the granite than the macadam, the macadam than the asphalte, the latter being the least 'smelly' of all. Possibly the chronic *ozæna* of the streets can never be wholly destroyed; whatever the appliances, whatever the expense, the thoroughfares of a great city will never be so pleasantly fragrant as a country lane. Allowing this, it is yet a legitimate field of inquiry as to whether the odour cannot be minimised. Foul gullies, of course, can be cleansed frequently and disinfected, dustbins emptied, but it is a different case with such a thing as wood pavement. All the world is clamouring for 'wood,' mainly because of its smoothness and its comparative silence. Recent research¹ has, however, shown conclusively that whatever advantages it may possess of smoothness, of adhesiveness, and of silence, it can never be cleansed, and never disinfected so as to free it from odour, the reason being that the impurities from horse urine and horse droppings are not superficial, but within; least in the centre, most in the channels. The old wood block is a reservoir of stink; the woody fibre, the natural lacunæ, are all filled with filth. Old wood blocks may be scraped, washed, and disinfected, yet the hot sun will evoke a stinking vapour therefrom. Hence it may well be considered whether wood should not give place to asphalte or to some other form of pavement. The experiments alluded to were made upon the comparatively soft deal blocks of Oxford Street, and it may be that dense hard woods, such as the so-called Jarrah wood, do not get so saturated and might be tried. Then, again, since the channels become the most impure, it is a good suggestion to have the channels, say for two feet from the curb, constructed of asphalte. The best pavement in the world for durability and silence and impermeability, without doubt,

would be 'rubber.' There is a small patch of this pavement in the roadway at the Euston Hotel, and it seems to wear well, but the initial expense is stated by indiarubber merchants to be prohibitory.

The health of the occupants of back-to-back houses. Mr. Tattershall, the medical officer of health for Oldham, has published the mortality statistics for ten years of the occupants of back-to-back houses in Oldham, a town which possesses no less than 4,893 of such dwellings. The total death-rate averaged 31·3 per thousand living, being an excess of 7·5 per thousand over the average death-rate for the borough during the same period. These back-to-back houses are as a rule only occupied by one family; so that the objection that such houses are likely to be tenement houses and more or less crowded cannot be made against the Oldham statistics. A more weighty criticism is that this class of houses is occupied by the lower stratum of the population; a stratum in which you would expect to find much fatal illness. In order to see how far this objection is valid, Mr. Tattershall has ascertained the population and the death-rate of the inhabitants of 220 Oldham cellar dwellings, and he finds for the same period that the death-rate is 29·0 per thousand, so that even in this case the death-rate of the back-to-back houses is in excess. The mortality of children in back-to-back houses is excessive, the rate for children under five years of age being given as 112·8 per thousand.

Since this inquiry is on a sufficiently large scale and for a sufficiently long period of time to minimise error, the results are important and deserve special attention.

Mortality of patients treated at home and in hospital.—Dr. Boobyer, of Nottingham, publishes each year a record of the comparative mortality of cases of fever treated at home and in hospital. The contrast for the year 1894 is certainly most remarkable. The hospital mortality expressed in per cent. of cases was but 2·7, whereas the corresponding rate of cases nursed at home was no less than 10·4 per cent., thus showing a difference of 7·7 per cent. in favour of the hospital. A small part of this difference may be accounted for by the fact that severe cases are kept at home, but the whole difference cannot be so explained; it is due to the careful nursing, the improved hygienic conditions, and to the standing rule of the Nottingham authorities of keeping the patients in bed for a minimum of three weeks, however mild the attack.

¹ *The Sanitary Chronicles of St. Marylebone* for June, 1895, by A. Wynter Blyth, Medical Officer of Health.

Epitomised Lectures and Papers

AN ABSTRACT OF THE CAVENDISH LECTURE ON DREAMY MENTAL STATES

*Delivered before the West London Medico-Chirurgical Society,
June 20, 1895*

BY SIR JAMES CRICHTON-BROWNE, M.D., LL.D.,
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THE lectures of Sir James Crichton-Browne are always interesting, always scientific, and for these reasons are always worth reading. This Cavendish lecture quite maintains Sir James's reputation in these respects. He spoke of 'the dreamy mental states,' and also of 'voluminous mental states' and 'intellectual auræ,' as not having received in this country the amount of attention they deserved. A sense of reminiscence it has been called by some, a sense of pre-science by others, and various other names shrouded in mystery; the condition has always been difficult of interpretation, described vaguely, but recognisable in the works of our most gifted writers. An impression suddenly taking possession of the mind that the passing moment of life has been once lived before or must be once lived again, that surrounding objects have been seen once before exactly in the relations in which they at the instant present themselves—Sir Walter Scott, Charles Dickens, and others, have described such feelings, and especially Rossetti in his 'Sudden Light':

I have been here before,
But when or how I cannot tell:
I know the grass beyond the door,
The keen, sweet smell,
The sighing sound, the lights around the shore.

You have been mine before—
How long ago I may not know:
But just when at that swallow's soar
Your neck turned so,
Some veil did fall—I know it all of yore.

These feelings have given rise to the idea of a previous state of existence (so quaintly dealt with by Coleridge in his book, 'The Doctor'). Oliver Wendell Holmes refers to the case of a poor student who, while blacking his boots, had been startled by such ideas as if by a flash of revelation, leaving behind a sense of solemnity and doubt. Wordsworth, Russell Lowell, and Coventry Patmore are others who deal with this subject.

It is always difficult to get correct information of other people's dreamy states, and we are apt, some of us, to assume the levity of the young American who, when interrogated regarding them, replied that he never lighted a cigar without the deepest conviction that he had done the very same thing, not once, but many times before.

Sir James wished to show that these dreamy states, so far from being normal, even in their slightest and simplest form, involved disorder of the mind—trifling, no doubt, but still a distinct disorder, dependent on a defect of consciousness in one direction indicated by vagueness as to the present surroundings. There are different kinds of these dreamy states, but they have not yet been classified. The most general description of them is that they are indescribable. They are occasionally linked with other mental states akin to them, but of a more pronounced pathological character.

In Tennyson's 'The Two Voices' and in his early Sonnets we cannot but recognise the outline of *Petit mal*, and Tennyson himself describes these seizures as epilepsy.

There are grounds for believing that the dreamy mental state depends on the heightened activity and the increased energising of nervous derangements intimately linked with those in which the true epileptic discharge begins.

The late Professor Laycock, of Edinburgh, recorded a case of epilepsy in which the paroxysms were inaugurated by a peculiar cry, a cry which, however, came sometimes independently as a false alarm, not being followed by unconsciousness or convulsions, and whenever that cry came alone the man was aware of it and discussed it afterwards, wondering what it meant; but when it was followed by a fit he had no knowledge of it, and denied its having been emitted, no permanent record of it having been made. And just as with that cry, dreamy states, dread thoughts, or emotions of terror which when standing alone can be remembered, may be, when linked with a fit, irretrievably blotted out.

A girl who was under Sir James Crichton-Browne's care in the West Riding Asylum, and who had suffered for years from what she called 'frightened bellyache,' and could only further explain as a feeling of fear at the pit of her stomach, after a time became epileptic, her fits always being immediately preceded by 'the frightened bellyache,' which lasted for about five

seconds, and allowed time for her to shout out, 'Bump my back.' If this were done with four or five smart blows a fit was frequently averted.

A lady had suffered from girlhood from what were then called 'spells of absent-mindedness,' but which, seen now by the light reflected on them by the experiences of her descendants, may be safely pronounced to have been dreamy mental states. At one period of her life she displayed insane jealousy; but she bore a family of ten children to a healthy, vigorous husband, and died at an advanced age from epilepsy.

A great many other and similar instances were recorded in this lecture, and Sir James then proceeded to deal with those strange sensations and impulses, psychical reflexes, which have led to suicide by precipitation under such circumstances, and of the fascination which has caused bystanders to yearn to throw themselves in front of a swiftly-passing train; in which phenomena we may perhaps discover analogues of dreamy mental states. A case is recorded in which a certain individual was utterly prostrated, and seemed even in danger of his life, by the effect of looking down from a great height, and this height-terror recalls one phase of the dreamy mental state; another is found in the thoughts which arise during the inhalation of certain anaesthetics, and notably of nitrous oxide gas. The latter condition abolishes volition and consciousness so rapidly that it is not possible for the person to observe distinct stages in its triumph over him.

We hear of somewhat similar dreamy states occurring to people in whom asphyxia by submersion in water has caused an expectation of drowning. The lecturer stated that he was aware, of course, that the possibility of this panoramic review of a previous life in people who are on the point of drowning has been denied, and that many all-but-drowned witnesses have borne negative testimony as regards it, and have represented their drowning thoughts as being of the most commonplace sort, and occupied chiefly with the weeds and pebbles, or sand, which were seen around; but still he was inclined to believe that very voluminous mental states do accompany drowning.

The writer of this article can bear testimony to this peculiar condition of the mind, not in connection with drowning, but as accompanying a sense of impending death from another cause, when the in-

cidents of his whole former life seemed to pass 'across his recollection in a retrograde succession,' as recorded by Sir Francis Beaufort in a letter published in the *Autobiography of John Barrow*.

As to the consequences or effects which these dreamy mental states exert when not apparently linked with epilepsy, it may be said that they carry with them, except when occurring during positions of peril, no risk to life. They do not tend to self-perpetuation to anything like the same extent as epileptic fits, for in many instances they are, as it were, excrescences of childhood and youth, and wear themselves out in middle age. Even when they remain for life it is often impossible to attribute to them pernicious results; and yet in many cases they do, the lecturer believed, have consequences of a painful and crippling description.

But even in the case of epilepsy such a condition is not incompatible with valuable exertions, and even literary talent. The lecturer had known a magistrate, who at eighty years of age was a model of shrewdness and industry, and who was still taking an active part in county business, who had from puberty suffered from epileptic fits at short intervals. Dostoieffsky, the great Russian novelist, was, from youth, subject to epilepsy of the worst type, yet lived to the age of sixty, producing up to the end of his life novels which will make his name live for ever, and in one of which he has delineated with minute observance and rare fidelity the symptoms of his own disease. Such cases are, of course, exceptional.

Seeing, then, that dreamy mental states, although occasionally an appendage of genius and often innocuous, sometimes lead up to epilepsy or insanity, sometimes are one of a series of morbid events, and sometimes impair the faculties of those who suffer from them, they are surely worthy of medical observance and research. As regards the treatment, it need only be said that it does not differ from that of cerebral neurasthenia and epilepsy. Rest and liberal nourishment rarely fail to alleviate and sometimes to remove them altogether, but the rest must be adequate and the nourishment wisely chosen. What we now urgently need are accurate and extended observations on the influence of diet of various kinds suitable to epilepsy and allied conditions. It is disheartening to reflect, however, that so little is being done, and that the material at hand is not more largely utilised.

There are in our asylums and workhouses to-day enormous numbers of epileptics, the majority, the lecturer believed, being, as far as medical treatment is concerned, left to jolt down the hill of fatuity headlong and heedlessly, or with only the temporary application of the bromide brake now and then.

We may some day perchance be able, by certain courses of study, to massage the brain as we now do the body, and by certain definite exercises to bring successfully into hygienic activity all the faculties of the mind, as Schott now does the muscles of the trunk and limbs.

AFFECTIONS OF THE NERVOUS SYSTEM OCCURRING IN THE EARLY (SECONDARY) STAGES OF SYPHILIS

(THE TERM 'EARLY' WAS MEANT TO COMPRIZE THE FIRST TWO YEARS)

At a recent meeting of the Royal Medical and Chirurgical Society of London, the president, Mr. Jonathan Hutchinson, F.R.S., opened a discussion on the above subject, from which the following is compiled.

I. On the distinction of stages.—We now recognise that in secondary syphilis the state of the blood affects all parts of the body, including the nervous system. The real difference between the secondary and tertiary stages is to be found, not in the structures involved, but in the character of the inflammatory action which ensues. In the secondary stage we have inflammations which develop rapidly, and sometimes with acute disturbance of the general health. They often also subside rapidly. They are usually symmetrical in distribution, and above all they are in the most remarkable manner amenable to the influence of mercury. When once the disorders incident to this stage have completely passed away, it is exceptional to see them repeated in the same forms. In the tertiary stage the type of the inflammatory process is chronic, and often local. It is also aggressive, and but seldom shows any tendency to spontaneous subsidence. It is curable also by a different class of remedies, notably by the iodide of potassium. During the secondary stage the patient's blood and all inflammatory secretions contain the syphilitic virus, and are capable of originating a chancre, whilst in the tertiary one they are not so.

It has been rather hastily assumed that affections of the nervous system belong almost wholly to the

tertiary period. If there are any forms of nervous disturbance due to the general poisoning of the blood which occurs in the secondary stage of syphilis, we should expect them to be symmetrical or even general, acute in their development, and, unless destructive in their nature, of only transitory duration.

Certain acute inflammations of the sense-capsules, the eye, the ear, and end-organs of the nervous system, have long been well recognised as liable to occur in the secondary stage of syphilis. Thus a patient may in the course of ten days become absolutely deaf, and unless very prompt treatment be resorted to, may remain so permanently.

II. On general analgesia in the secondary stage.—Professor Alfred Fournier many years ago drew attention to this symptom.

In some instances anaesthesia was present also, and in some the inability to distinguish between heat and cold was such that the patient might burn herself unwittingly. The defect was usually symmetrical, but not always so. The condition might last several weeks or even months.

The observation is perhaps chiefly of importance as indicating that in the secondary stage the poison of syphilis may exercise a wide influence on the peripheral nervous system.

III. Cases of acute multiple neuritis.—Under this heading it is wished to place certain cases, somewhat difficult of interpretation, in which the subjects of syphilis become affected with more or less general paralysis, but with symptoms which appear to exclude the supposition that the central organs are primarily involved. Cerebral symptoms may be present or absent. The most plausible hypothesis in most of these seems to be that there is a condition of multiple neuritis.

Mr. Hutchinson recorded the case of a young man whom he had treated for secondary syphilis. From this he had almost wholly recovered, and the treatment had been interrupted, when he began to lose strength and become apathetic. Suddenly an acute illness developed. He had ptosis, first on one side, then on the other. There was strabismus, almost complete loss of use of all the limbs, and paralysis of the sphincters. His mental condition was such that he would only answer in monosyllables, and at times could scarcely be got to put out his tongue. From this condition, under the very liberal use of mercury, both internally and by inunction, he entirely recovered, and has since remained well. His nerve illness occurred eighteen months after his primary disease.

Many cases of neuritis of single nerves in the course of syphilis have been recorded, and in a few the affection occurred in early periods of the disease.

Dr. Buzzard has reported a case which was attended with double facial paralysis, and in which complete recovery ensued under treatment for syphilis. In this case all the extremities were affected, and even the muscles of respiration. Cutaneous anaesthesia was more or less general, but the sphincters retained their power.

This case, with another, is related under the head of the 'rapid and almost universal paralysis' to which Dr. Buzzard has devoted his eighteenth lecture,¹ and of which he well remarks that we have yet to learn the true pathology.

IV. On the early occurrence of disease of arteries.—The most important difficulty which attends our investigation of the nature of the nervous symptoms which occur in secondary syphilis concerns the implication of the arterial system. It is now well known that the arterial coats may be very extensively affected at early periods of syphilis, and that there may result therefrom great deficiency in local blood-supply, or a more or less sudden complete arrest of it. A considerable group of cases in which the nervous system is involved must in all probability find its explanation in this manner, but there are many others to which I think the theory of arterial obstruction, so far as we at present understand it, can scarcely be allowed to extend.

I suppose it may be assumed that when a sudden attack of hemiplegia occurs in the course of syphilis, it is probably due to arterial thrombosis. A not inconsiderable proportion of such attacks occurs within the first two years of syphilis. The statistics collected by Dr. Gowers confirm this statement. I have notes before me of several cases in which the attack occurred within the first year. In the majority of these, under efficient treatment, recovery, with more or less permanent damage, ensued, and with no tendency to relapse. It seems not improbable that the forms of arterial disease which are acute, multiple, and inflammatory are most of them incident to the secondary stage, and are curable usually without relapse, just as other secondary symptoms are. By the term 'curable' it is not meant that the results of the disease are wholly removed, but that there is no further tendency to fresh developments. Atheroma, aneurisms, and

the results of narrowing of diseased vessels may be encountered at any stage of syphilis; but the notion that the primary arteritis which leads to such changes is usually tertiary is probably a misconception.

Dr. Sharkey has recorded, in the 'Pathological Transactions,' a case in which a man died from disease of the cerebral arteries in the seventh month of syphilis, and whilst he was still covered with the secondary eruption. The arterial disease was quite symmetrical, affecting the middle cerebral on both sides. He had suffered from headache, and suddenly became semi-comatose, with convulsions in all the limbs.

Dr. Bristowe has published two cases of great importance in reference to our present subject.

The first of these was that of a young man who died exactly six months after his chancre had occurred, and was the subject of syphilitic psoriasis at the time his fatal illness seized him. Occipital headache and sickness were his first symptoms, but a fortnight before his death he began to ramble and to be troublesome, and it was observed that the pupils were contracted, the conjunctivæ congested, and that the left eyelid drooped. Five days later he had left hemiplegia, and a little later still it was found that nearly all the muscles of the right eyeball were paralysed. He became more drowsy and stupid, and in spite of syphilitic treatment he died on the fourth day after the right ophthalmoplegia was observed, and about a month from the first commencement of headache. The post-mortem examination revealed thickening with obstruction of the right posterior cerebral artery, and consequent softening with disintegration in patches of the right crus. Some thickening of the membranes at the base of the brain was also observed. The partial paralysis of the left third nerve was conjectured to be due to some special but concurrent lesion of it.

V. Cases of acute paraplegia (*transverse dorsal myelitis*).—The only important contribution of facts which Mr. Hutchinson was able to make concerned a group of cases of what may be called acute spinal paralysis. Examples of this affection he had found recorded in his note-books to the number of more than thirty. Briefly to describe this form of paraplegia, it may be said that its first symptom is usually pain in the lumbar region of the spine. Very quickly numbness of the feet follows, and, with but little delay, paralysis of the bladder and rectum. The paraplegia may be complete, or almost so, as regards both sensation and motion, in the course of a week or ten days. At this stage the patellar reflex may be lost. If specifics are very promptly and efficiently used, indications of tendency

¹ *Clinical Lectures on Diseases of the Nervous System*, by Thomas Buzzard, M.D. Lond., Physician to the National Hospital for the Paralysed and Epileptic. Churchill.

to recovery are soon observed, and after an illness of two or three months the patient is again able to walk, and enjoys fair control over the pelvic viscera. The recovery, however, in severe cases is never complete, and although improvement may continue during several years, he is often to some extent dependent upon the assistance of sticks, and almost always the peculiar manner in which he throws his legs about in walking betrays the malady from which he has suffered. During all the later stages of the malady the patellar reflexes are greatly exaggerated, and there is seldom perfect control over the sphincters. A very remarkable feature of the disease is that, when once recovery has taken place, there is no tendency to relapse. But this form of paraplegia is liable to great variations in degree of severity.

Fifteen cases in all were referred to.

As to the length of the interval between the primary syphilis and the paraplegia. In the first three this interval was about six months; in cases 4, 5, 6, 7, 8, and 9 it was between six and twelve months; in 10, 11, 12, and 13 it was between twelve and eighteen months; whilst in 14 and 15 it was just within the two years. None of the cases ended fatally, and, with the exception of two which were lost sight of, all the patients made a partial recovery. In none could the recovery be said to be complete, whilst in several the patient only just regained the power to walk, and still continued to suffer from inconvenience as regards the bladder and rectum.

Whilst the general evidence of symptoms—the sudden acute onset, the definite local limitation, and the severity of the paralysis—seems to give support to the belief that the process is a myelitis and not merely a change secondary to disease of the blood vessels, it is yet to be admitted that in most of the carefully performed autopsies the latter condition has been found. More facts are needed before we can feel sure of our ground in this matter. In the meantime we may perhaps provisionally adopt the phraseology of Erb, who speaks of it as a 'myelitis transversa dorsalis.'

The speaker had found but little information in the works of modern writers concerning syphilitic affections of the spinal cord in early periods. Dr. Hilton Fagge and Dr. Buzzard were the chief exceptions, the latter, in his excellent clinical lectures, having devoted one to 'Syphilitic Paraplegia.'

Mr. Hutchinson then referred in detail to the cases recorded under the heading, 'Cases of Acute Syphilitic Paraplegia in which Autopsies were Obtained.'

He stated that one of the cases recorded by Sir W. Gull as an example of paraplegia associated with gonorrhœa and stricture of the urethra read to him exactly like a syphilitic case.

Mr. Hutchinson referred to two cases recorded by Dr. Déjerine in the 'Revue de Médecine' of January 1884, which were quoted in the 'Lancet' of February 9, 1884.

A case is given in the 'Lancet' of June 1889, which was under the care of Mr. Bernard Walker, of Rotherham, which is valuable because a post-mortem was obtained. The notes were written by Mr. H. Cropley.

In a case recorded by Lamy, in which a man died of paraplegia one year after contracting syphilis, to the naked eye the cord appeared normal, but microscopic examination revealed diffuse gummatous arachnitis and lepto-meningitis. The infiltration was most marked about the veins, and the spinal arteries were almost unaffected. There was softening of the cord in the upper dorsal region.

In another case by Lamy the paraplegia set in one year after the syphilis, and was complete in seven days. Death from bedsores, &c., occurred eighteen months after the onset of the paralysis. The autopsy revealed lepto-meningo-myelitis, with implication of the nutrient vessels of the cord (periarteritis and periphlebitis).

Dr. Arthur Fox, of Bath, has recorded in 'Brain,' part vii. (vol. ii., 1880, p. 418), the case of a prostitute who had suffered from syphilis, and who died after a fortnight's illness with symptoms of ascending myelitis.

VI. The paralysis of single nerves.—Dr. Fordyce, of New York, has recorded a case in which left facial paralysis, without loss of hearing, occurred four months after syphilis. It disappeared in ten days under specific treatment.

Steenberg has recorded another case in which facial paralysis was coincident with an early secondary eruption. Many others have been published.

Cases have been recorded by Dr. Ehrmann in which single nerves were affected in the early stages of syphilis.

VII. A peculiar form of partial hemianæsthesia.—There is a peculiar form of incomplete hemianæsthesia which occurs to the subjects of syphilis, respecting the pathology of which the lecturer had no explanation to offer. The patients become quite suddenly numb in one half of the face, limbs, and trunk. The anaesthesia is incomplete, and is better described as subjective numbness than real loss of sensation. The skin is some-

times more or less tender when touched. Some of the best examples of this which he had seen were in the early periods of syphilis. In one, a woman of forty-five was just recovering from iritis and an eruption, and was still under treatment, when she was attacked by partial deafness in both ears. A little later she had a seizure whilst dressing, and in the course of a minute one half of her head and both limbs on the same side had become quite numb. She recovered under treatment.

As regards treatment, Mr. Hutchinson urges the necessity for the full use of mercury, notwithstanding severe symptoms of anaemia and debility.

Conclusions.—The facts which have been brought forward seemed to him to justify the following conclusions, which he offered as the basis for discussion.

1. The nervous system may suffer in very various ways during the secondary period of syphilis, and it is very important to recognise this fact, since the affections are usually acute and destructive unless prompt treatment be adopted.

2. It is very exceptional that any disease of the nervous system occurs earlier than the sixth month.

3. Many, perhaps most, of the affections of the nervous system in the secondary period are secondary to disease of the blood-vessels. Under this head we may be permitted to include extensive implications of the minute arteries of the pia mater, whether of the brain or cord.

4. Amongst the diseases which are probably primarily of the nerve structures themselves we may recognise (1) acute affections of the eye and ear, of the latter sometimes attended by paralysis of the portio dura; (2) acute forms of polyneuritis, usually symmetrical and transitory; (3) a peculiar and very definite form of paraplegia due to transverse myelitis; (4) certain rare and peculiar forms of hemianæsthesia.

5. It is not disputed that at much later periods in the course of syphilis affections closely similar to the above may occur, but it is believed that when they do so they are much slower in onset, less severe and more chronic in progress, and less amenable to specific treatment.

6. The prognosis of these affections is good up to a certain point if efficient treatment be commenced early.

7. It is believed that these early affections of the nervous system in syphilis occur almost invariably to those in whom the treatment in the early stages of the disease has been more or less neglected.

Sir Samuel Garth

BORN 1661, DIED 1719



Of Samuel Garth it may be said that he was something more than a popular physician of his time. He was a *bon vivant*, a man of ready wit and literary ability. His poem upon 'The Dispensary' attracted a great deal of attention

at the time, as not only a strong argument in support of the College of Physicians regarding their establishment of dispensaries for the poor, but as a work of considerable poetical merit.

Pope thought so well of Garth that he dedicated his second pastoral to him.

Accept, O Garth, the muse's early lays,
That adds this wreath of ivy to thy bays;
Hear what from love unpractised hearts endure,
From love, the sole disease thou canst not cure.

At the time when Garth became a Fellow of the College of Physicians, June 1692, a great contest was taking place between the physicians of the day and the apothecaries. Most of the apothecaries of that time were uneducated men, and sold groceries as well as drugs, and were not supposed to have any medical knowledge. They were allowed, however, to perform phlebotomy, and were thus brought more closely into contact with the patients than the chemist of to-day should be.

In the reign of James I. the apothecaries obtained a charter, and became 'Freemen of the Mystery of Grocers and Apothecaries of the City of London.' Nine years later the apothecaries obtained a charter separate from the Grocers, and were placed under the control of the College of Physicians, who had the power to inspect their commodities and to regulate their actions. The apothecaries, however, did not choose to be controlled by their censors, and as medical knowledge in those days was to a great extent empirical, the vendors of drugs found it easy to compete with the qualified physicians, and took to prescribing freely.

The custom which then existed for the apothecaries to call in physicians to advise upon treatment gave the former a peculiar position of patronage, and



G. Kneller, pinx.

T. Houbraken, sculp., Amst. 1748.

they were, moreover, thus able to cover their practice of prescribing on their own account.

The apothecary now became a sort of general practitioner of the day, and defended his action by stating that there were so many poor who could not afford the fees of the physician that it was necessary for someone to cater for them in this respect.

In 1697 Garth gave the Harveian Oration at the College of Physicians, at the end of which he mentioned the scheme, which had been under discussion for the previous ten years, for establishing a dispensary for the poor. This scheme was carried into effect, but a minority of the Fellows allied themselves with the apothecaries to defeat it, the apothecaries charging exorbitant prices for the drugs they supplied to the order of the physicians. Those who are interested in this lengthened and not very dignified contest should read Garth's works; 'Johnson's Lives of the Poets'; Merritt's 'Short Views of the Frauds and Abuses committed by Apothecaries,' London, 1670; and Thomas Brown's 'Physick Lies a Bleeding,' 1697.

It was at Garth's instigation that the body of Dryden was allowed to lie in state at the College of Physicians, where he made a Latin oration on the poet.

Garth married a daughter of Sir Henry Beaufoy, and had one child, a daughter. He was knighted on the accession of George I., and was made physician in ordinary to the king.

The portrait which we append is from an engraving by T. Houbenraek, after the painting by Sir Godfrey Kneller, which is at the Royal College of Physicians.

Hogarth also made a drawing of Garth, which represents him at Button's Coffee-house, standing by a table, at which Pope is sitting down.

Many stories are told of Sir Samuel Garth, some of which are characteristic of the age in which he lived. At the Kitcat he was looked upon as more amusing than either Swift or Arbuthnot, and his wit used to lead him sometimes to prolong his visits rather far into the evening. 'Really, Garth,' said a friend upon one occasion, 'you ought to have no more wine, but be off to see those poor devils,' meaning his patients. 'It is no great matter,' Garth replied, 'whether I see them to-night or not, for nine of them have such bad constitutions that all the physicians in the world can't save them; and the other six have such good constitutions that all the physicians in the world can't kill them.'

Cordy Jeaffreson, in his 'Book about Doctors,' records the above incident, and also the story of

Garth writing a letter at a coffee-house and being overlooked by a curious Irishman.

The doctor said nothing, but added the following postscript :

'I would write you more by this post, but there's a d——d tall, impudent Irishman looking over my shoulder all the time.'

'What do you mean, sir?' roared the Irishman in a fury. 'Do you think I looked over your letter?'

'Sir,' replied the physician, 'I never once opened my lips to you.'

CONGENITAL HYPERSTROPHY

Figures 1 and 2 below represent cases contributed to the 'Revue d'Orthopédie' for May by M. Galvani, Professor of Surgery at the University of Athens. They are described as cases of Acromagaly, but it is quite evident that they are not of this nature, but are instances of congenital hypertrophy, a condition which yet remains obscure as to its pathology.

Case 1.—Aged twenty-five. No family history of any kind of deformity. It was recorded that this

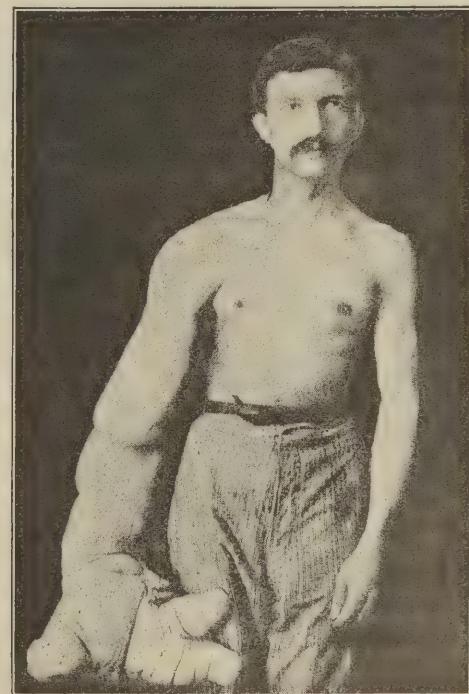


FIG. 1.

young man had been born with the enlargement, but had suffered little inconvenience until the age of twenty. During the last five years the limb had in-

creased very greatly, and had become a great burden to him. Amputation was the only treatment available.

Upon examination of the parts it was found that the adipose tissue and the subcutaneous connective tissue were very greatly developed, and penetrated into the muscular interstices. The muscles and bones were nearly normal as regards their volume. Of the vascular system, the subcutaneous veins alone presented increase of size. The connective tissue surrounding the nerves appears also to have been much increased.

Microscopical examination showed a great development of the reticular structure of the subcutaneous fatty tissue. This tissue invaded the muscles and even the nerves, giving to the last the aspect of neuromata.

The microscopical tissue of the muscles appeared otherwise normal. The bones and the skin presented nothing particular.

Case 2.—Child aged eleven months. No family history of any deformity. At birth it was observed that the left foot was larger than the normal, and that the second phalanx of the great toe was nearly double



FIG. 2.

its normal size. The deformity had greatly increased since birth. The third, fourth, and fifth toes were normal.

Nature of congenital hypertrophy.—The nature of these cases remains as obscure as when Mr. Holmes

wrote about them in the third edition of his 'System of Surgery,' in 1883. He thought that there might be two causes—viz. disease of vessels, or a congenital tendency allied to, if not identical with, that which



FIG. 3.—CONGENITAL HYPERSTROPHY OF MIDDLE AND INDEX FINGERS.

Dotted line shows where amputation was performed. 'Dublin Hospital Gazette, 1854.' (R. ADAMS, of Dublin.)

produces the more limited and striking hypertrophies which he described under 'congenital tumours.'

Widenmann has suggested a neurotic influence, and Trélat upholds the theory of vaso-motor disturbance. A lengthy account of this condition appears in 'Langenbeck's Archives,' vol. vii., by Busch. The affection may be symmetrical.

Fig. 3 is an instance of more limited congenital hypertrophy.

Mr. Robert Jones, of Liverpool, showed a specimen very similar to fig. 3, except that the thumb and index finger were those hypertrophied, at a recent meeting of the British Orthopaedic Society held in London July 30, 1895. Mr. Jones had amputated the enlarged digits, and upon a microscopical examination it was found that the enlargement depended almost wholly upon an increase of fatty tissue; even the bones seemed infiltrated with fat.

Health and Holiday Resorts

LLANGAMMARCH WELLS

THE 'Barium' springs of Llangammarch Wells have for many years held a well-merited local reputation in the treatment of rheumatism, gout, eczema,

struma, and allied diseases. The water is palatable, and always maintains about the same temperature, showing that it arises from a deep spring. Among its chief constituents are the following salts :

Chloride of sodium	189·56 grains per gallon.
Chloride of calcium	84·56 " " "
Chloride of magnesium	24·31 " " "
Chloride of barium	6·24 " " "
Carbonate of calcium	2·80 " " "
Silica	1·40 " " "

It will thus be seen how it has obtained its therapeutic reputation, most of the above salts being valuable in the treatment of all diseases owing their cause to an excess of uric and other acids in the

It is, therefore, especially to its use in heart disease, organic and functional, that we would draw our readers' attention. A series of baths of this water, accompanied by a well-regulated use of it as a drink, is of very great value in the treatment of many forms of heart disease ; the improvement being greatly accelerated when the patient undergoes a course of those exercises which are now associated with the names of Dr. Theodore Schott and his brother, the late Dr. Augustus Schott, of Nauheim in Germany.

We give below one case which illustrates the effects of this combined treatment and represents the results that are obtained in a vast majority. We may say that the patient has not as yet completed the prescribed



THE LAKE AT LLANGAMMARCH WELLS, CENTRAL WALES.

system ; the water being a useful diuretic, laxative, and alkaliiser.

In disorders of digestion due to an excessive acidity of the secretions this water is also very useful.

Chloride of calcium has been highly recommended as a specific in serofulous enlargement of glands, and to this constituent the water mainly owes its value in cases of struma.

The chloride of barium contained in it forms its chief characteristic. It is a well-known fact that this salt has a powerful action upon the circulation, reducing the frequency and increasing the force of the heart's action, after the manner of digitalis, but not increasing the arterial tension to the extent that digitalis does.

course. A. B., aged thirty-six, single, temperate, a worker in an iron foundry, gave the following history. Up to four months ago he was a strong, healthy man, had had no severe illness, and had for many years followed the same employment, which is of a most laborious character. Four months ago he had a severe attack of influenza, and since that time he has been unable to do any work. He feels weak, is very nervous, can only walk a short distance on the level without becoming short of breath, suffers from palpitation, and perspires profusely ; his hands and tongue are very tremulous, he has lost weight, cannot sleep, has lost his appetite, and, as he himself expresses it, 'is getting worse and worse.' On examination his hands were

somewhat blue, his pulse 134 per minute, very soft, very small, and somewhat irregular; his heart was much dilated, especially on the right side, the apex beat was only just perceptible to the hand in the fifth left interspace, just outside the nipple line, the cardiac dulness extending from just outside the left nipple line to about two inches to the right of the sternum. The liver was enlarged, there was some slight oedema of the legs and feet; all other organs were apparently normal. He commenced the treatment referred to

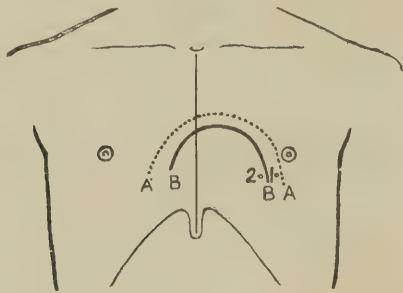
greatly diminished, and the heart sounds, which were at first only just audible, are fairly strong. His liver dulness is normal, and he has no oedema of the legs. We append a tracing of his cardiac dulness before and after eleven minutes' immersion in a 'barium' bath, and also his pulse rate before the bath, during immersion, and after dressing.

From the tracing will be seen the diminution in cardiac dulness caused by the bath. The pulse rate of 100 before the bath was probably due to the



THE IRFON, LLANGAMMARCH WELLS, CENTRAL WALES.

above, and began to improve almost directly. At the end of three weeks his condition was as follows. 'He can walk a considerable distance quite comfortably, and says he feels a different man. As to his physical condition, the tremors of the hand and tongue are only just perceptible, his pulse rate varies from 80 to



90 per minute, the pulse is of good volume, fair tension, and regular as to rhythm. His cardiac dulness has

excitement of the physical examination, it being, as we said above, usually between 80 and 90.

Pulse rate just before bath	.	.	.	100
After 1 minute's immersion	.	.	.	56
" 2 minutes' "	.	.	.	68
" 3 "	.	.	.	80
" 4 "	.	.	.	76
" 5 "	.	.	.	72
" 6 "	.	.	.	72
" 7 "	.	.	.	76
" 8 "	.	.	.	76
" 9 "	.	.	.	78
" 10 "	.	.	.	76
" 11 "	.	.	.	76
" dressing	.	.	.	82

The patient at the same time breathed more slowly and deeply.

The effect of the bath upon the circulation may probably be accounted for in the following manner:

The cutaneous stimulation set up by the con-

stituents of the water causes a dilatation of the cutaneous capillaries all over the surface of the body; it also causes a stimulation of the cutaneous nerves, the latter effect being probably more lasting than the former. The above by increasing the calibre of the vessels relieve the heart, and thereby enable it to act more slowly and strongly. The simple 'barium' baths are first resorted to, but later on, if required, by the addition of certain chemicals a bath can be produced resembling closely in character and constituents those of Nauheim. A course of five to six weeks is requisite to enable the patient to obtain the utmost benefit from the combined treatment of the baths, use of the water, and exercises. It has been proved by Dr. Schott that the effects produced are rarely of short duration, and that where only functional disease is present, the treatment is generally curative.

Llangammarch Wells has, however, features of medical interest quite apart from the therapeutic value of its Barium springs. Although it lies some 600 feet above Ordnance datum, the invigorating character of its air is quite in excess of that which it gains by its elevation. It lies, indeed, in a wide, open valley; but to the north and east it is protected by a high range against cold bleak winds. Facing north-west it has between it and the sea little else than mountainous country, and in this way Llangammarch receives a constantly changing air, having all the characters of the elevated ranges over which it passes in its passage from the sea. This probably explains the exhilarating character of the air, and is the reason why so many invalids, and especially persons depressed by overwork, so rapidly recover strength and appetite. During the past two years this result has again and again been experienced by those who have suffered from the depressing influences of epidemic influenza.

THE RIVER THAMES

Many of those who visited the recent meeting of the British Medical Association in London obtained for the first time glimpses of the Upper Thames, and were so charmed at what they saw that they expressed a desire to make a complete acquaintance with our river.

In response to this feeling, and at the special desire of many of our friends, we now give a short description of the Thames, and how to see some of its beauties.

We shall confine our attention to the river between Oxford and Maidenhead. Above Oxford access is far more difficult, and below Maidenhead the river is so overrun by cheap-trippers that, except in the middle of the week, it is hardly to be recommended.

To take a good general view of the Thames in the shortest time we must make use of a launch. A



FIG. 1.—FOLLY BRIDGE, OXFORD.

steam launch, the boating-man's *bête noire*, or the less objectionable electric launch, may be chartered from any of the principal boat proprietors on the river. Every morning except Sunday a steamboat leaves Salters' Boathouse at Folly Bridge, Oxford, at 9.30 a.m., arriving at Henley at 7 p.m. It stops for an hour at



FIG. 2.—IFFLEY.

Wallingford for luncheon, and a *table-d'hôte* dinner is provided at the Royal Hotel, Henley. The next morning a boat leaves Henley and goes down to Kingston, stopping at Windsor for luncheon, so that the whole river from Oxford to Kingston can be seen in two days.

The steamer trip, however, is a very unsatisfactory

way of seeing the river, the chief beauties being only accessible to a rowing-boat. The various backwaters and nooks, the picturesque villages and mills, require time and the convenience of a rowing-boat to be inspected. A party of three or four may make a very pleasant week or ten days' excursion in a good skiff, which they should order beforehand of Salter, Folly



FIG. 3.—NUNEHAM.

Bridge, Oxford; and this can be left at any part of the river, from which Salter will afterwards fetch it. Or one of the boatbuilders lower down the river will send a boat up to Oxford. The terms are very moderate.

To take an easy trip with time to dawdle, a very good plan is to go to Oxford in the morning, and start at midday or after having luncheon, row down to



FIG. 4.—WALLINGFORD.

Abingdon (8 miles), put up at the 'Crown and Thistle'—a comfortable, old-fashioned inn—and see this interesting and historical town. Start early next morning and row down to Wallingford (13 miles), putting up at the 'Lamb' or 'George.' The next day down to Goring, where very good accommodation will be found at 'The Miller of Mansfield,' or on the opposite bank

at 'The Bull' at Streatley; or we can go down to Pangbourne (another 3 miles), and put up at the 'Elephant,' and on the fourth day to Sonning (9½ miles from Pangbourne), stopping at Lockley's, at the Bridge, or at the 'French Horn,' up the Backwater. On the



FIG. 5.—WHITCHURCH.

fifth day down to Medmenham Abbey. The Medmenham Abbey Hotel we consider to be by far the best place to stop at on the river. The place is beautifully situated and the fare of the best. The hotel lawn slopes to the river.

The next day on to Maidenhead, where the 'Ray



FIG. 6.—SHIPLAKE.

Mead Hotel' is very pleasantly situated, or we can put up at the 'Thames Hotel,' a little lower down the river. We have not space to give even a brief account of the various places passed in such a trip, but these are fully described in Taunt's Guide-book.

Geology.—Oxford is on clay—Oxford clay. At Iffley we come to Corallian beds, at Sandford to Kimmeridge Clay. Abingdon also is upon this clay. Culham and Sutton Courtney are upon gravel, but to the north lies the Lower Green Sandstone, upon which



FIG. 7.—HENLEY.

Clifton Hampton is built. Passing down the river we come just below this to the gravel again, which continues until we reach Benson, which is upon the Upper Greensand. This formation continues until we arrive at Wallingford, which old town is built chiefly upon the chalk. The river now passes through



FIG. 8.—MEDMENHAM.

chalk until it reaches Sonning, but Reading and its neighbourhood lie upon Woolwich and Reading beds. The same may be said of Sonning. Soon after leaving Sonning we come to chalk again, which continues all the way to Maidenhead.

As to the healthiness of places for a summer residence, probably the most salubrious spot on the Thames is that occupied by Goring and Streatley. Whitchurch is also good, but Pangbourne, on the opposite side of the river, lies lower. Caversham, Henley, and Marlow are well situated, but in any case it is desirable to select a spot which is not flooded in the winter.

One of the most depressing atmospheres we know is at Crowmarsh Gifford, opposite Wallingford. Abingdon, although on the clay, has seemed to us fresh and healthy for a short residence. Medmenham Abbey, although close to the water, we have also found comparatively free from dampness and fogs. The case of Crowmarsh Gifford shows that geological formation is little guide to our selection, unless we also take into consideration the local peculiarities, and we would advise very great care in the selection of any residence, whether it be for a short or long period.

The Pathological Museum

PRESSURE AS A CAUSE OF ANKYLOSIS BETWEEN BONES

THE subject of ankylosis as a result of long-continued fixation of joints was probably disposed of many years ago, but we may refer to Dr. Menzel's writings upon the subject in the '*Archive für Klin. Chirurgie*.' He was in accord with Cloquet, whom he quoted as a supporter of the idea that ankylosis sometimes results from prolonged disuse of joints; we may also refer to the works of Tessier and Bonnet.

That ankylosis does not follow fixation of a joint independently of inflammation is conclusively proved by the freedom of the ankle-joint after tenotomy in cases of talipes equinus of long standing. In more recent years ankylosis is supposed to have resulted from great pressure between joints without any specific inflammation.

Mr. W. Arbuthnot Lane has written a good deal upon this subject of pressure changes. In the Guy's Hospital Reports for 1885–6 he reviews his previous writings, and refers to his attempts to prove that there is no such disease as rheumatic arthritis, the conditions usually regarded as constituting that disease being, he considers, inseparable from and

identical with the changes produced in the osseous system by pressure.

We must own that Mr. Lane's theories are very attractive, but we think that in some instances the theory has somewhat preceded the evidence. He thinks that we can detect the previous career of a labourer from the appearance of his bones, and the changes which have been produced by his occupation. There can, we think, be little doubt that the curves and distortions described as following certain avocations are definite results from definite causes, but whether it is possible for simple pressure to produce ankylosis is quite another matter.

It is rather opposed to our knowledge of pathology to suppose that such a change can occur without some degree of inflammation; at any rate, the point cannot be considered as finally settled, and, simply as a contribution to facts, we give illustrations of pathological specimens which may be useful in the study of this matter.

In some cases where severe pressure must have occurred between bones we meet with ankylosis, but in others, where the pressure must have been equally or more severe, no sign of osseous union has occurred, nor, in fact, any other change of bony structure, except change of shape from prolonged pressure.

We have not space now to enter more fully into the arguments on Mr. Lane's papers, but we may possibly do so on some future occasion.

Museum specimens.—We have examined a number of specimens in the Metropolitan museums, cases in which there must have been a great amount of pressure, continued for a great length of time, between some of the vertebrae. The result of this inquiry seems to show that ankylosis does not invariably result from pressure alone, and it seems probable that some inflammation must be present to cause an osseous union between these bones—a degree of inflammation which is not commonly caused by mere pressure, however severe that may be. Chronic rheumatic arthritis, gout, syphilis, traumatic injury, or other inflammatory processes, are among such possible causes of osseous ankylosis.

The following figures illustrate some of the specimens examined. The ribs in these cases have either been left out entirely or are only slightly indicated.

Considering that there is probably more severe pressure between the bones of a curved spine than under any other circumstances, we have selected these cases for illustration.

Case 1

From the Royal College of Surgeons Museum. (No. 2099.) Lateral curvature of spine. The first cervical vertebra has been lost. There is complete ossification between the second and third cervical vertebrae, but none whatever between any other of the vertebrae.

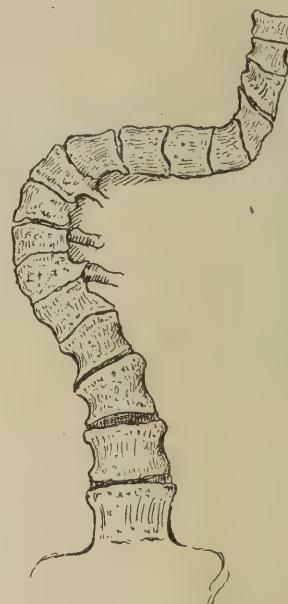


FIG. 1.

There is, however, union between the ribs of the right side from the seventh to the eleventh. It is difficult to know what to attribute the union of the two vertebræ, but probably it was a congenital condition. We can hardly attribute it to pressure between the bones, for had this been so there would surely have been some indication of ossification between other cervical vertebrae. Pressure must have been far greater in the concavity of the dorsal curve, where there is no sign of ossific deposit or ankylosis.

Case 2

From the Royal College of Surgeons Museum. (No. 2098.) Lateral curvature of the spine. In this case also the pressure must have been very severe between the vertebrae, and yet there is no ossification between them. There is an appearance of ossific deposit uniting the heads of the seventh, eighth, ninth, and tenth ribs on the left side, but upon close examination we find that this material is chiefly, if not entirely, composed of wool and glue artificially applied to keep the ribs in place. The ends of the

ribs appear cleanly defined, and not as if imbedded in ossific deposit.

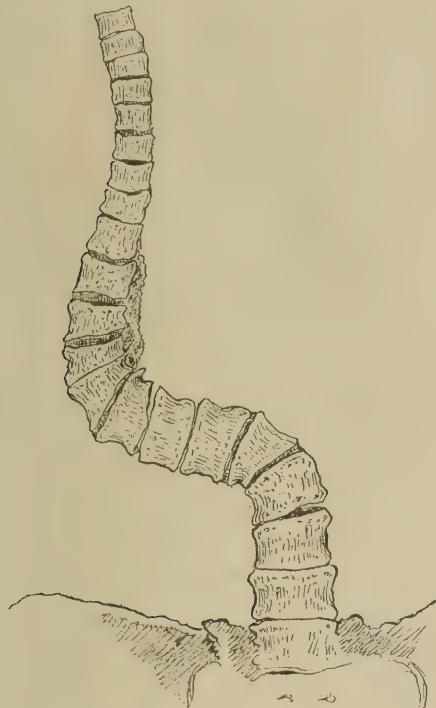


FIG. 2.

Case 3

From the Middlesex Hospital Museum. (No. 770.) Severe lateral curvature of the spine. Here there was osseous union between the eighth, ninth, tenth, and eleventh, perhaps between the eleventh and twelfth, dorsal vertebrae, and there was partial absorption of the eighth rib on the right side, which was pressing against the tenth dorsal vertebra. In other

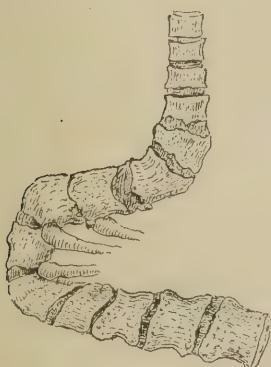


FIG. 3.

respects than the ankylosis we cannot see any difference between this specimen and the foregoing,

except as regards the severity of the deformity. With respect to the pressure, it does not seem likely that there was much more here than in the other case, so we cannot account for the difference in the condition of the joints.

Case 4

From Middlesex Hospital Museum. (No. 768.) In this there is no ankylosis whatever between the bodies of the vertebrae, but in the deepest part of



FIG. 4.

the chief concavity 'the zygomatic processes are forced close to the root of the spinous processes, and new bone is deposited around them.' (Catalogue.)

Case 5

From Middlesex Hospital Museum. (No. 765.) This specimen consists of seven dorsal vertebrae



FIG. 5.

from a child, showing a double lateral curvature. New bone has been formed around the articular facets of several of the ribs, increasing their area considerably. There is, however, no osseous union between the vertebrae.

Case 6

From the Royal College of Surgeons Museum. (No. 677.)—This specimen is the whole skeleton of an adult, but in the drawing only a small portion of the spine is shown. It is a case of severe rachitis, and we find no osseous union between the bodies of the vertebrae,



FIG. 6.

but there is between the articular processes of the first, second, third, and fourth lumbar vertebrae. There is none between the articular processes of the other vertebrae, not even between those of the eleventh and twelfth dorsal and first lumbar, where the pressure must have been greatest.

Therapeutics

Saxol is now coming into use as an application to the nose and throat when in an inflamed condition. This preparation consists of very pure petroleum in a liquid state. It seems to facilitate the absorption of any medicinal matter which may be mixed with it. The best plan of administration is by means of a spray.

Tannopumilene is another preparation which is very useful in throat cases when a strongly astringent effect is required. It has been found serviceable in hay fever, and is especially useful in fissures of the anus.

Fuller's earth.—We doubt if the application of this material for the purpose of absorbing unhealthy excretions is sufficiently recognised as a therapeutical agent. Prepared Fuller's earth is freely used in the nursery in place of violet powder, and may be employed with benefit in many cases

of undue secretion of the skin from various causes. It has the merit of not clogging the pores, as is apt to happen with the finer preparations of dusting powders. It seems to combine with all oleaginous matters, and is thrown off from the skin instead of remaining to clog the surface.

Hypodermic injection tablets.—The employment of tablets or tabloids for hypodermic injection is so much in vogue at the present day that we quite expect to see tablets added to the new 'Pharmacopœia.' The chief objection to their use is the difficulty in dissolving them. Dried sulphate of sodium or some other preparation of sodium is generally used as a basis, but an acid salt, such as cream of tartar, allied with an alkaline carbonate, is calculated to make the solution easier.

The hypodermic injection of morphia is probably the most frequently used. Solutions of morphia become troublesome from the crystallisation of the salt. One firm of chemists has used morphia sealed in capillary tubes, one of which may be broken at the time of use. The injectio morphinæ hypodermica, as described by Martindale, is made by precipitating the alkaloid from 92 grains of hydrochlorate of morphine by means of excess of solution of ammonia, washing the precipitate, and redissolving by adding acetic acid to make the mixture very slightly acid, further adding distilled water q.s. to measure exactly two fluid ounces, and then filtering. The 'Pharmacopœia' states that one drachm contains six grains of acetate of morphine, corresponding to 4.25 grains of morphine when precipitated with ammonia and dried.

A solution, one grain in six minims, is also frequently used. Acetate of morphine becomes less soluble with age. It is necessary either to use it freshly prepared or to use an equivalent quantity of the pure alkaloid dissolved by means of acetic acid. Martindale recommends the following process for producing the stronger injection :

INJECTIO MORPHINÆ ACETATIS HYPODERMICA		
1 grain in 6 minims.	Dose	1 to 3 minims
Morphine (pure alkaloid)		60 grains

Place in an ounce vial, and moisten with

Distilled water 6 drachms

Add

Acetic acid 40 minims, or q.s.,

to make the solution barely bright after being kept closed at a gentle heat for twenty-four hours. Then filter and sprinkle, and wash the filter with sufficient distilled water to make the product measure exactly one ounce. Shake to make uniform, and keep the solution from the light in stoppered bottles, the stoppers of which should be coated by rubbing the ground part over with soft paraffin. If the stopper be then inserted firmly, it prevents any oozing or incrusting of the morphine around the neck of the bottle; a few drops of glycerine added will, it is

said, prevent any incrustation. It has a straw colour, changing to vinegar-brown on keeping.

The effect of an overdose of sulphonal.—Dr. Wright Hardwicke records the case¹ of a dipsomaniac woman, aged thirty-seven, who, after consuming a variety of strong alcoholic drinks, including turpentine, chewed up some sulphonal tabloids to the amount of 265 grains. She was found shortly afterwards in a state of stupor. Five hours later she was seen by Dr. Hardwicke, who found her sleeping on her side with her knees drawn up, and the pupils slightly contracted and insensible to light. When roused she smiled graciously, and lapsed off to sleep again; she tried once to raise herself in bed, when she fell powerless back again. Next day the legs were found to be extended, and the soles of the feet were arched in a state of extreme flexion. The bowels were confined. She slept from 5 P.M. on June 1 till 5 A.M. on the 4th—sixty hours—and did not regain speech till the 7th, nor the power of locomotion till the 9th.

Therapeutical use of the thyroid gland.—The treatment of myxoedema and allied affections by the administration of preparations of the thyroid gland is becoming very general. We hear that the tabloids of the gland are taking preference over other preparations. A $\frac{1}{8}$ part of a tabloid prepared by Messrs. Burroughs & Wellcome, that is, equal to a $\frac{1}{28}$ part of an average gland, has been known to produce very considerable reaction.

It seems better to commence with this smaller dose, or certainly as small a dose as a quarter of a tabloid, to test the susceptibility of the patient.

Thyroid tabloids for pityriasis rubra.²—Mr. Walter Seatchard, of Boughton-sub-Blean, Kent, writes that, after a trial of a very extensive number of drugs internally and externally, he gave thyroid tabloids gr. v daily. One tabloid extra was given every two days until the patient, aged seventy-two, was taking four daily.

The result was remarkably good, and the patient was cured, although she suffered in general health considerably during the treatment. She became emaciated, depressed, anaemic, and short of breath; but these symptoms soon passed off after ceasing the tabloids and giving strychnine and wine.

Thyroid extract for ichthyosis.²—Dr. Athelstane Nobbs, assistant medical officer, County Asylum, Morpeth, treated a patient, aged forty-six, who was apparently greatly benefited as far as the ichthyosis was concerned; but the patient was also the subject of general paralysis, which ‘pursued its normal progressive course.’

Thyroid extract in psoriasis.²—Dr. Harry R. Preece, of Birkenhead, has apparently cured a case of psoriasis of many years’ standing with thyroid extract.

¹ *Lancet*, July 20, 1895.

² *British Medical Journal*, March 30, 1895.

The Practitioner's Note Book

Tapping the pericardial sac.¹—Dr. Gordon Sharp refers to a case of acute rheumatism in which he tapped the pericardium, at first giving great relief to the oppressed breathing, but a repetition of the operation brought on severe increase of oppression and the child died. He thought he would have done better to trust to other remedies.

Dr. Samuel West wrote in answer² that he had tapped the pericardium several times with good effect. He agreed that pericardial affections of rheumatic origin do not, as a rule, require paracentesis, but yet it may be a very desirable operation under some circumstances. He urged that an aspirator is hardly ever necessary, and that a sharp hollow needle was the best instrument to use, and far safer than a trocar and canula. The latter requires more force, and may stick at the collar and ‘jump,’ and go farther than intended and wound the heart.

Aortic aneurysm, mediastinal tumour, and caries of the spine.—Dr. Alex. James, physician to the Edinburgh Royal Infirmary, publishes remarks³ upon the symptoms of aortic aneurysm with special reference to sensitive areas on the skin.

In the case upon which he bases his remarks the patient, a joiner, was aged sixty-four, and had a history of good health excepting a record of specific disease in his ‘soldier days’ (he had been though the Crimean War). His present illness had commenced eighteen months previously with ‘a dull, aching pain in the back of his neck.’ Six months ago he noticed also a pain in his chest. These pains were of a dull, boring character, and were always brought on by exertion.

Recently there had been some loss of power in the right arm, but the patient had been able to continue his work until a week before admission. He was seen by a medical man, who diagnosed aortic aneurysm. There was not only pain over the precordia and in the upper part of the chest generally, but also in the back.

Dr. James describes the condition of the heart, which was greatly enlarged, the difference in the radial pulses, the ‘tracheal tugging,’ and refers to the difficulty of diagnosis between aneurysm and mediastinal tumour, an enlarged heart being a point strongly in favour of the former.

The pressure symptoms are also discussed. The difference in the tracings of the radial pulses is ascribed to the opening of the innominate being narrowed by a clot, and that of the left subclavian being perfectly free.

¹ *British Medical Journal*, March 23, 1895.

² *Ibid.* March 30, 1895.

³ *Ibid.* June 29.

Referring to the nerve symptoms, Dr. James describes especially the painful areas on the skin of the chest and back. The patient referred to above died three days after admission, and therefore no accurate mapping out of these areas could be given, but there being two other cases of aortic aneurysms in the ward, he described this symptom in these cases. Diagrams are given showing in one case a spot about the size of a five-shilling piece an inch below the right sterno-clavicular joint, and smaller spots on the inner side of each elbow. Also one at the upper and inner borders of the right scapula.

The other patient had a spot on right side of chest, about an inch above and a little to the sternal side of the nipple, one on the vine aspect of left elbow, and a large area in the back crossing the two scapulae.

Dr. James supports the view that these pains, so often complained of in aneurysm, are caused by peripheral irritation of the various segments of the spinal cord rather than to direct pressure upon nerves.

Dr. James in recording the above facts does not discuss at any length the subject of their application to diagnosis, nor do we propose to do so. It will be well, however, to bear in mind a class of cases which are often obscure in their early stages, but which may give rise to symptoms remarkably similar to those produced by aneurysm. We refer to caries of the vertebrae in adults.

Milkers' cramp.—Dr. Louis Vintras sends us the following case. This form of cramp, though well recognised, is not so common as one might expect. The following case, however, is very typical:—

The patient was a strong, wiry little man aged sixty-seven. He never remembered being ill. He had been milking all his life on and off, but continuously for the last fourteen years. For a week or ten days he had felt sharp pains in the inner half of the right hand, coming on at times and shooting up the arm. There was a sense of numbness on both aspects of the ring and little fingers and corresponding half of the hand; there was distinct diminution of sensation on this side of the palmar aspect when pricked with a pin, as compared with the other half; no appreciable difference on posterior aspect; no difference on the front of the forearm; slight difference on the back of the forearm. There was no pain on pressure. When milking cows with long teats all the fingers are closed, but most cows have teats too short for this, so only the index and second fingers are used, the other two being extended to be out of the way. It is this forced position which causes the cramp. There was a marked contraction of the little finger, preventing its being properly extended, and slight contraction of the ring finger. There was a sensation of pins and needles in all the parts involved.

Acute suppuration in deep-seated parts.—Sir George Humphry, M.D., F.R.S., in a paper upon the treat-

ment of wounds read at a meeting of the Cambridge Medical Society, after referring to the principles upon which the antiseptic treatment is based, referred to cases of acute suppuration in joints and other deep-seated parts where no trace could be found of any discharge or sore upon the surface. He said: ‘Whence did the organisms of suppuration spring, and how did they find their way into the knee-joint? The same remark applies to acute suppurative periostitis, where they have long been known to be present in great abundance and in great virulence. It may be, it not improbably is, the case that in certain persons the bacilli exist in greater or less quantity in a more or less innocuous or inactive and non-toxin-producing state, and that, when the vitality of any part is lowered by a blow or strain or an inflammatory attack, they take their opportunity, cluster in it, and germinate, and acquire increased virulence or toxin-producing quality, and do mischief, causing suppuration and other troubles. This may account for their presence in such cases as I have mentioned, and the general prevalence in animal bodies of these organisms would account also for some of the other phenomena associated with them. It may truly be said of them that they are of the earth, earthy; and the higher we ascend into the regions of the atmosphere, the less numerous and the less potent do they become, the less able to hold their own. Though air is their habitat and means of conveyance, yet air simple—air pure and fresh, which seems to be synonymous with air in motion—appears to be their antidote. The closely shut up, stuffy apartments, of which the bedchambers in our houses, and especially in our cottages, present so many examples, are their favourite breeding-places. If we could build our hospitals, instead of our castles, in the air, high up, we should have little need of antiseptic appliances.’

Speaking of internal cavities, Sir George remarked that the greatest exploits of modern surgery had been achieved in these regions. ‘The peritoneum, which used to be the dread, is now entered fearlessly as if it were the playground, of surgery.’

The value of antiseptic dressings having been urged, the speaker added that in cases which ‘in the nature of things cannot be aseptic, as in operations about the anus and where freer escape of discharges and freer admission of air would be advantageous; and in wounds of the face, which heal perfectly well without any dressings, these are, for the most part, better omitted. I say “for the most part,” because, when erysipelas is prevalent, they may serve as a protection against that malady. The mention of such points

shows how slight are the real objections to the practical application of the great principle ; and probably they would occur only to the thought of one who was long wedded to the open-air method of treating wounds.'

As regards the opening of abscesses about the anus, some eminent specialists never use antiseptics, acting upon the same principles which Sir George Humphry urges.

THE USE OF THE PERCUTEUR IN SEVERE NEURALGIA AND OTHER AFFECTIONS.

BY RICHARD NEALE, M.D.

In 1881 Dr. Mortimer Granville described his perfected percuteur in a paper in the '*Lancet*' of that year. Since that time it has been used with varying results.

Dr. W. H. Neale described¹ a very severe case of facial neuralgia quickly cured by its aid, and several successful cases are recorded² by myself and Dr. Bays.

On February 27, 1894, Mr. William Rose kindly sent a patient to me who for seventeen and a half years had been more or less in misery with trifacial neuralgia, for which many severe operations had been performed, with but temporary benefit. The percuteur gave immediate relief, which lasted sometimes a day, sometimes longer, until after twenty applications the patient wrote, May 9, 1894, in answer to a request for a report, 'My face is going on all right, as I have had no pain since I came to you three weeks ago.'

Being relieved from her trouble the patient undertook a very arduous and ill-paid situation, where she was very badly fed. She had a relapse, but in July, after several more applications of the percuteur, she was again able to go to a situation, and since that time has not returned for treatment. A year later (July 1895) this patient reported herself to Mr. Rose and myself, having remained quite well.

At the present time (August 1895) a severe case of hysterical depression verging into melancholia is under treatment, and the beneficial result of seven applications has been most marked, the patient having derived more benefit than by any other remedy previously employed. The percuteur is in this case applied all over the head and down the length of the spine for half an hour daily.

In a case of neurasthenia and impotency, the result of applications of the percuteur applied down the whole length of the spine has been most satisfactory.

NURSING UNDER THE POOR-LAW. DISTRICT NURSES.

Ignorance of the extent of the power which lies in their hands partly, perhaps, explains, though it does

not excuse, the failure of many Boards of Guardians to provide adequate nursing for those sick poor for whom they are responsible to the ratepayers.

It is incumbent upon these authorities to provide nurses not only for the infirmary wards, but also for the sick paupers receiving outdoor relief.

To this latter class attention was called in a circular issued to Guardians in February 1892 by the Local Government Board. After stating that the majority of cases 'can be best treated in properly equipped infirmary wards,' the Board proceeded to say that in exceptional circumstances the sick may be with propriety attended in their own homes. It also recommended that, in such cases, the nursing should be undertaken by 'duly appointed officers of the Guardians, having recognised qualifications for the position.' . . . The Board 'consequently decided to empower Boards of Guardians to appoint such officers.'

The qualifications of the district nurses whom the Guardians are thus authorised to engage must include 'thorough practical training.' The circular also provides that 'no person shall be appointed to the office who has not undergone, for one year at the least, a course of instruction in the medical and surgical wards of a hospital or infirmary being a training-school for nurses and maintaining a resident physician or house surgeon.'

A longer period than one year would seem desirable, although the Board has not deemed it expedient to insist upon such a course as an indispensable condition.

The Local Government Board also considers that district nursing calls for special preparation of, and personal fitness in, those who undertake it. They recommend the Guardians to provide suitable uniforms for their nurses and properly furnished bags for their work in their districts.

The power conferred by the Order on which the said circular is based has hitherto been exercised to a very limited extent.

The services of a district nurse are secured in some unions through a local nursing institution, which undertakes that she shall attend all cases for which the medical officer sends an order. In return for the nursing of their outdoor patients the Guardians usually vote a sum of money to such institution, which sum is occasionally in fair proportion to the benefits received. In the majority of cases, however, payment appears to be made reluctantly and only after repeated applications, and even then on a wholly inadequate scale. An annual subscription of two or even five

¹ *Practitioner*, vol. ii., 1884, p. 345.

² *Lancet*, vol. ii., 1893, p. 1125.

guineas to the local nursing association cannot be taken as adequate compensation for services rendered to several scores of persons by skilled and experienced nurses supplied by such associations.

The idea that the ratepayers' pockets will benefit by depriving the poor of the benefits of proper nursing is assuredly unsound. It is obvious economy to assist in all ways in the restoration of their health; therefore the employment of intelligent nurses, in addition to the medical treatment, is one of the wisest recommendations which the Local Government Board has ever issued.

It is impossible to ignore the fact that many of 'the decent poor' refuse to become inmates of 'the house' until they are driven to resort to this refuge by the chronic state of ill-health which early treatment might have saved them from. The majority of the cases would welcome the trained district nurse in their own homes, and would escape in a measure the inevitable 'break-up' of the household which ensues when the breadwinner is for a long time absent from his family.

Guardians, however, are unfortunately not always in favour of good nursing, and in rural districts they often undervalue its advantages. When they assert, as not infrequently happens, that certain diseases (including typhoid) need only ordinary care, they forget that even 'ordinary care' is unattainable when the only nurses at hand are neighbours, whose kindness is only equalled by their ignorance of the first principles of hygiene, sanitation and sick-diets.

It seems strange that many Guardians still fail to realise their exact position. In the current year, *i.e.* three years and a half after the distribution of this instructive circular, they are often reported to be in doubt whether the Local Government Board would be likely to sanction their providing the paupers with that skilled care which only a nurse of the type already suggested by the Local Government Board can supply.

Veterinary Notes

FIRING HORSES

It would be difficult to define the exact pathological condition of the legs of a horse for which firing may be suggested as a remedy, but it will suffice for this article to consider it chiefly as a method of treating severe strains of ligaments which have left permanent weakness, accompanied with permanent or frequent lameness.

The following questions may arise:

1. Is the horse to be kept in work suffering continual pain, and endangering its driver or rider by being very liable to fall?

2. Is the horse to be destroyed?

3. Or is some more or less severe treatment to be adopted?

We are assuming that all simple remedies have been tried and found useless. Few, if any, of our readers will agree to the first alternative, and thus the question will rest between destroying the horse and attempting to cure the lameness.

Blistering and firing.—If we have determined to try and cure the animal, the question often arises as to the relative merits of three plans: (1) blistering, (2) firing, (3) a combination of both procedures.

For all but quite trivial cases blistering is quite ineffectual, and, moreover, every surgeon will know that blistering is far more painful than firing. Firing is not nearly the severe operation which it is commonly thought to be. The first stroke doubtless produces severe pain, but not more severe than a hard stroke with a riding-whip; and the successive cuts with the hot iron, the operator always working from above downwards, are practically painless, as the nerves from above have been already destroyed.

We are writing from practical experience, having fired many horses, and the following description of the process will, we think, make the matter more plain.

The horse should be hobbled, and before being thrown down a large quantity of straw should be strewn for him to fall on. It is well, moreover, to have a soft ground, such as tan or grass, underneath, as in the fall of the horse some of the straw may be displaced and the animal be hurt or seriously injured by falling on hard bricks or stone.

We have fired a horse with the side line while he has been standing, but it is much better to have the animal cast.

When the horse has ceased to struggle the firing iron at a dull red heat is to be carefully pressed across the part to be fired, the leg having been previously shaved. The operator should endeavour not to quite penetrate the whole skin, which is about half an inch in thickness; but if cut through to a small extent no harm will ensue.

A horse will always wince at the first cut, but we have known them lie absolutely quiet during the subsequent incisions.

If it is thought worth while we can give the horse chloroform, but taking an anaesthetic is probably more distressing to the animal than the almost trivial pain which he experiences from the firing. There is another important matter for consideration in deciding whether to give chloroform or not. It is difficult to treat horses after chloroform with the same care as we can deal with human beings, and consequently horses are very liable to get congestion or inflammation of the lungs. Whereas after even a severe operation without an anaesthetic a horse will attack vigorously a feed

of corn without showing any signs of that shock which would probably be experienced by the human patient.

The first time we fired for a severe strain we thought that blistering into the fired part was a needless procedure and a cruel one. Experience has taught us that in severe cases of lameness the wounds caused by firing alone heal up so quickly that insufficient effect is produced, and that it is necessary to blister also to prolong the healing and to set up more local irritation. As to pain, we doubt if this is very much. The pain of a blister depends upon the stretching of the skin, whereas after firing there is no stretching; also, the superficial nerves having been destroyed, very little pain is probably felt.

PLEURO-PNEUMONIA IN CATTLE, AND RABIES

In a perusal of the records of the various contagious diseases (of animals) in Great Britain, as given in a recent number of the 'Veterinarian,' we notice that whereas pleuro-pneumonia has been almost exterminated from this country (only fifteen cases having been recorded during the past year), rabies has increased to an alarming extent. During 1893, 94 cases of rabies were recorded, but in 1894 the number rose to 256, and of these latter 112 occurred during the last thirteen weeks of the year.

The stamping-out of pleuro-pneumonia has been conducted energetically and systematically, and the fact that during the period referred to 391 healthy cattle were destroyed simply because they had been in contact with the diseased animals, is an instance of how thoroughly this process of stamping-out is being effected.

What a contrast have we in the measures taken with regard to rabies! The Muzzling Orders have been simply a farce, for what can be the use of the irregular and unsystematic imposition of muzzling? While in one district a dog must have his mouth closed, he may be free to bite anyone he likes, or any fellow-creature, if he only walks into the next parish.

If all the dogs in the country were muzzled for six months, rabies would be stamped out. At present the only effect of the muzzling is to produce irritation and vexation among dog-owners.

ABSTRACTS FROM FOREIGN JOURNALS

A case of peritonitis with pneumococci.—Dr. Kirmisson read an account of the following case before the Société de Chirurgie de Paris. A young lad, ten years

old, suffering from suppuration of the right foot, probably of tubercular origin, was seized, six weeks after the appearance of this lesion, with all the symptoms of acute peritonitis, for which he was brought to the hospital. There was marked fluctuation; the umbilicus was red, tense, and seemed on the point of bursting. Median laparotomy was performed, and as soon as the abdomen was opened thick green viscid pus escaped. The cavity was well washed and two large drainage tubes inserted. In three weeks the patient was well. The character of the pus led Dr. Kirmisson to suspect the presence of pneumococci, and the bacteriological examination confirmed this diagnosis. With the pneumococci were a few steptococci.

(*Revue de Chirurgie.*)

Old cerebral abscess causing epilepsy.—In the current number of the 'Revue de Médecine' Dr. Lépine gives, among other cases occurring during the year at the Lyons Hôtel Dieu, the case of a woman aged sixty-two, who, on admission to the hospital, stated that for the last ten years she had been subject to fits, for which there seemed to be no apparent cause. At the time when her trouble began she was seized with convulsions and lost consciousness; this was followed by left hemiplegia lasting a fortnight. Since then she had been treated in various hospitals for what had been diagnosed in one place as epilepsy, in another as hystero-epilepsy. On December 16 last she had another fit, and remained unconscious for a quarter of an hour; the fit was accompanied with severe twitchings of the legs and arms. This occurred four times in the same day, and on the following days she had several fits. It was noticed that by sitting down when she felt the attack coming on she could prevent the fall. She did not utter cries and did not bite her tongue; the convulsions were more distinct on the left side. On the day after her admission she was seized with complete hemiplegia of the left arm and leg, the face not being affected. This lasted until death. There was an increase of temperature of the affected limbs. The fits at first diminished under the influence of large doses of bromide of potassium, but after a time this failed to have any effect. The temperature gradually rose to 104°, and then to 106°, when the patient died.

At the post-mortem there was found over the first convolution of the right hemisphere, somewhat nearer to the anterior part of the right hemisphere than to the fissure of Rolando, an adherence of the pia mater to the dura mater; beneath this adhesion was a very thin layer of grey matter, softened over an area of four to five square centimetres, with a hard point in the centre. A perpendicular section through this point showed that it was a cyst. The cyst was spherical, with a diameter of from two to three centimetres, and contained caseous matter of the consistency of putty. The wall was fibrous and about a millimetre in thickness. With the exception of the softened part of the grey matter covering the cyst the surrounding cerebral substance was perfectly

healthy. The other organs also were healthy. From the history of the case the abscess dated back ten years. Its position near the motor centres explains the occurrence of the epileptic fits; but the author justly remarks, that the violence of the ultimate fits is not so easily explained, as there was no lesion of the cerebral substance between the cyst and the nervous centres. Trephining would not have revealed the lesion, as the symptoms would have led to the cranium being opened farther back, at a point between the centre for the upper and the centre for the lower extremity. The author, however, hints, on the authority of Mr. Horsley, that the mere fact of trephining might have given some relief.

Contusion of the brain with unusual symptoms simulating traumatic neurosis.—The 'Revue Neurologique' gives the report of this case, read by Dr. H. Rendu before the 'Société Médicale des Hôpitaux de Paris.' A carpenter, aged fifty-six, fell from a height of about two feet. There was no loss of consciousness, no cerebral shock, no sign of fracture, but the next day right hemiplegia had supervened, with slight paresis of the right side of the face. The anesthesia of the right side was more marked in the arm and thigh, and suddenly ceased at the shoulder and at the hip. The case appeared to be one of traumatic neurosis, and the patient's condition improved during the first week, when suddenly, on May 12, his speech became impaired, he had a sensation of weight in the head, and a few days later he had an epileptic fit, beginning in the right foot, and followed three days after by another fit, which left his speech still more impaired. Trephining revealed well-marked lesions of the left frontal parietal convolutions. Dr. Rendu very justly concludes, that under the name of neurosis many cases are probably included in which there has been mechanical injury to the brain, and in which true lesions are present.

Reviews

Dictionary of National Biography. Edited by SIDNEY LEE. Vol. xli., Nichols—O'Dugan; vol. xlii., O'Duinn — Owen. 1895. (London: Smith, Elder & Co.)

This work, which has maintained so remarkably its excellence, furnishes in volume xli. many interesting biographies, out of which stand pre-eminently Sir Stafford Northcote (Lord Idesleigh) and Daniel O'Connell. There are also certain medical biographies, though not any one of very great importance. They include Brinsley Nicholson,

born in 1824, who became an army surgeon, serving in the Kaffir war, the Chinese war, and against the Maoris in 1864; Whitlock Nicoll, born in 1786; William Nisbet; William Norford, born in 1715, who wrote upon cancer and fever; Edward Norris, born in 1663; William Northcote, naval surgeon, who wrote on 'The Marine Practice of Physic and Surgery'; John Northleigh, born in 1657, who wrote in defence of James II.; John Nott, born in 1751; Edward Nourse, born in 1701, who became senior surgeon to St. Bartholomew's Hospital; Christopher Nugent; Thomas Nunneley of Leeds, whose name must be more familiar to our readers; and Dr. Noad, lecturer on chemistry at St. George's Hospital.

In volume xlii. appear the biographies of Sir Richard Owen, James A. Ogle, Sir Fielding Ould, Dr. William Osborne, and many others.

In writing the biographies of past celebrities which are given in this journal we obtain our information from various sources, but in all cases refer to the descriptions given in the 'Dictionary of National Biography.'

The Climates and Baths of Great Britain. Being the report of a committee of the Royal Medical and Chirurgical Society of London. Vol. i.: 'The Climates of the South of England, and the Chief Medicinal Springs of Great Britain.' Contributors: Robert Barnes, M.D.; J. Mitchell Bruce, M.D.; W. Howship Dickinson, M.D.; William Ewart, M.D.; A. E. Garrod, M.D.; W. Lazarus-Barlow, M.D.; Malcolm Morris, F.R.C.S.E.; W. M. Ord, M.D.; F. Penrose, M.D.; Frederick Roberts, M.D.; E. Symes Thompson, M.D. 1895. (London and New York: Macmillan & Co.)

The original committee formed for the purpose of compiling this report was constituted in 1889 upon the motion of Dr. Barnes, seconded by Dr. Ord. After a lengthy inquiry, based chiefly upon information derived through letters from medical men living in the various districts, but also upon the personal investigations of some members of the committee, the present volume has been issued.

This work cannot fail to be of great value to all those interested in the subjects dealt with, and these ought to include the majority of medical men.

It would be, however, phenomenal if such a compilation were found free from errors or above criticism. We can at least say now that the work is well printed in good type, and appears to be carefully written and systematically arranged. We defer for a future review a more detailed description.

CLINICAL SKETCHES

SEPTEMBER 1895

The Prevention of Tuberculosis

DR. JAMES NIVEN, Medical Officer of Health to the city of Manchester, has taken very active steps to point out the precautions which he considers ought to be taken to avoid the communication of phthisis from one individual to another. Last year he issued a handbill which was sent to every house in the city of Manchester. This handbill was arranged in fifteen paragraphs, and pointed out to the reader in very clear language information which we may summarise as follows: The liability of consumption to be communicated from one person to another, especially in damp, badly ventilated, and badly lighted houses and workshops, and this particularly by expectorated matter when dry and dispersed as dust. Therefore consumptive people, and those with any chronic cough, should expectorate into pieces of rag or paper, which should be burned, or in some way got rid of, so that the sputa would not dry up and be disseminated in the air.

He advised disinfection of the bowel discharges by their being passed into a 15 per cent. solution of carbolic acid, or that the vessel used should be scalded after use. He also advised the disinfection of soiled clothing, disinfection of the house containing a consumptive patient, the patient being confined to certain parts of the house. He described methods of preventing auto-contamination from inhalation of diseased germs. He pointed out that the milk from consumptive cows is very dangerous to those who drink it, and therefore that all milk should be boiled before use, and that, because many animals suffer from consumption, all meat should be thoroughly cooked.

He refers to the condition of cowsheds in this country as being very favourable to the existence of

tubercle among the cows, especially as regards their usual dusty condition, and he remarks that phthisis is not rare amongst country people.

Dr. Niven considers that tuberculosis ought to be made a notifiable disease, and this, we take it, is the opinion of most of those who have paid much attention to this subject. It is especially in the later stages of phthisis, when patients require nursing and constant attention, and when through weakness their personal habits are liable to become most negligent, that those in contact with them are exposed to the greatest amount of risk. He does not propose to include in the notifiable cases those which consist simply of closed glandular, bone, and joint affections, but only to deal with such cases as, from the presence of discharges, whether from the lungs, mouth, skin or bowels, there is a manifest liability to convey the disease.

He does not think that this would involve any great expense. By notification we should be assured that precautionary measures were taken by the suffering individuals or their attendants, and that the conditions of the house favouring the spread of the disease would be ascertained and as far as possible remedied. Disinfection of the rooms would be carried out, and the danger of exposure of other members of the family, and especially those suffering any condition of lowered vitality, to the diseased germs would be pointed out.

We think that this last point is one which is of the highest importance—that is, the greater liability to tuberculosis of those whose vitality is low. It is

probably impossible, or at any rate it is so for the present, to carry out isolation of the individual and destruction of the tubercle bacilli to such an extent as to render the atmosphere of our towns and cities free from danger; and it is probable, if not absolutely certain, that liability to infection depends absolutely upon the vital strength of the individuals exposed under ordinary circumstances to infection. (We purposely avoid the term 'contagion.)

There is much to be done in this respect to improve the diet of children and youths, and this among all classes of society. With the poor the gathering together in schoolrooms of far greater numbers than used to be the case is a great source of danger, and yet it is especially amongst children that the diets are insufficient to produce the required vitality.

Other classes of the community are very little if any better off, for no greater scandal exists, we believe, in the present day, than the feeding of school children even in the so-called better class of schools.

As to our public schools, they are as greatly at fault as any others, and we believe that it is about time that some united action were taken by the Governing Bodies, or, if they will not act, by the parents, to institute inquiries into this subject. The complaints of young people are too often set aside as worth no attention, and when joint disease, or some other sign of tuberculosis occurs, it is often a matter of wonderment how such conditions have arisen.

At a recent meeting of the Association of Medical Officers of Schools, Dr. Horace Savory, Medical Officer to Haileybury College, read a paper bearing upon this subject, in which he stated :

'For children under twelve no work should be allowed before breakfast, and it was quite an open question whether it would not always be better to commence the day with the main breakfast, say at 7 or 7.30 A.M.; boys should not be allowed to miss this meal, and there should be responsible people to see that each boy ate it, and an interval of at least half an hour after it should be allowed before work was commenced. The evening meal should be a substantial tea not later than 7.30. . . . If a boy was for any reason unable to take his tea, he might have some bread and butter and cocoa or milk at night, and of course allowance might always be made by the medical officer for delicate children. The

early meal should consist of cocoa, with plenty of milk, and bread and butter. Breakfast proper was the meal which most needed improvement; fish, eggs, ham, or bacon were most appetising, and much preferable to cold meat; porridge was an excellent thing, and might be given three or more times a week with plenty of milk and sugar, but it should be given at the end of the meal and not at the beginning, as it was bulky in comparison with its nutritive value and might interfere with a substantial meal being made if taken first. Dinner was of much the same type at all schools: a great difficulty was the supply of green vegetables all the year round, and then getting the boys to eat them when they had been provided. At his own school, recently, soup had been started with satisfactory results, and the cost, with good management, was practically *nil*. Puddings were always a difficulty, the number of interesting inexpensive varieties being limited, and sometimes the most wholesome were unpopular. He would allow a glass of mild beer, though he did not consider it of any value in the dietary of the healthy schoolboy. Tea should be mainly farinaceous, tea, bread and butter, and jam being the chief ingredients; *meat, cheese, or beer was most inexpedient.*

We have italicised the last line, because we doubt the correctness of the theory which forbids a meal of meat in the evening. Whatever may be the views as regards quantity and the particular articles of diet which are most desirable, there can be no doubt that the food and the cooking should both be good. This is generally far from being the case. And as an instance we may mention the case of one of our largest public schools, where, last year, during one term, the meat had to be sent away from table seven times because it was absolutely bad.

NOTES BY THE EDITOR

THE portrait of Garth which appeared in this Journal for August has been very much admired.

It is certainly a marvellous result of modern methods of reproduction, and does credit, not only to the artists who have done the work, but also to the printers.

The lifelike character of the expression on the features, the silky appearance of the wig, and the

chiaroscuro of the whole picture equal, if not surpass, the line engraving from which the portrait was taken.

I am often asked how these results are obtained. They depend upon several points of detail.

In the first place, the portrait or picture selected must be suitable for reproduction, and this is a matter of experience.

Then great care has to be taken by the artists who reproduce, and when the plate is made much depends upon the skill of the printer, the excellence of the paper, and the good quality of the ink.

In this present issue, the plate representing James Earle has been made from a proof engraving by S. Cousins, A.R.A., after a drawing by H. Corbould of the bust sculptured by William Behnes. Only a very limited number of these *private plate* copies were issued, and the one I possess is a very fine impression.

In October I propose giving a representation of the celebrated Holbein picture in the possession of the Barbers' Company, representing Henry VIII. presiding at the amalgamation of the barbers and surgeons, commonly described as the presenting of the charter to the company.

The facts of the case will be explained in the description which will accompany the picture.

The approach of the winter session leads me to urge the importance of encouraging students to make more use of drawing in noting cases, and in all their work.

Not only does drawing impress the subject upon the memory more forcibly than writing, but it gives the student a ready reference for all times.

Shorthand is another phase of note-taking which ought to supersede the usual long-hand method. It is, in fact, a species of word-drawing, as its technical name denotes.

It is chiefly owing to the efforts of Dr. Gowers that phonography is now used by medical men much more extensively than was the case a few years ago; and considering how important note-taking is in our work throughout life, and how impossible it is for medical men to take their own notes, whereas the

members of nearly every other profession can have it done by clerks, the study of phonography ought to be encouraged among students as much as possible.

The art of economising time, so as to obtain as much useful information as possible in the shortest way, is a very necessary study in the present day, and I am glad to see that the compilers of the new edition of the 'British Pharmacopœia' are recognising the importance of introducing the metric system into pharmacy in this country.

There seems to be a probability of metrical measurements being the subject of legislation, a reform which is very much needed.

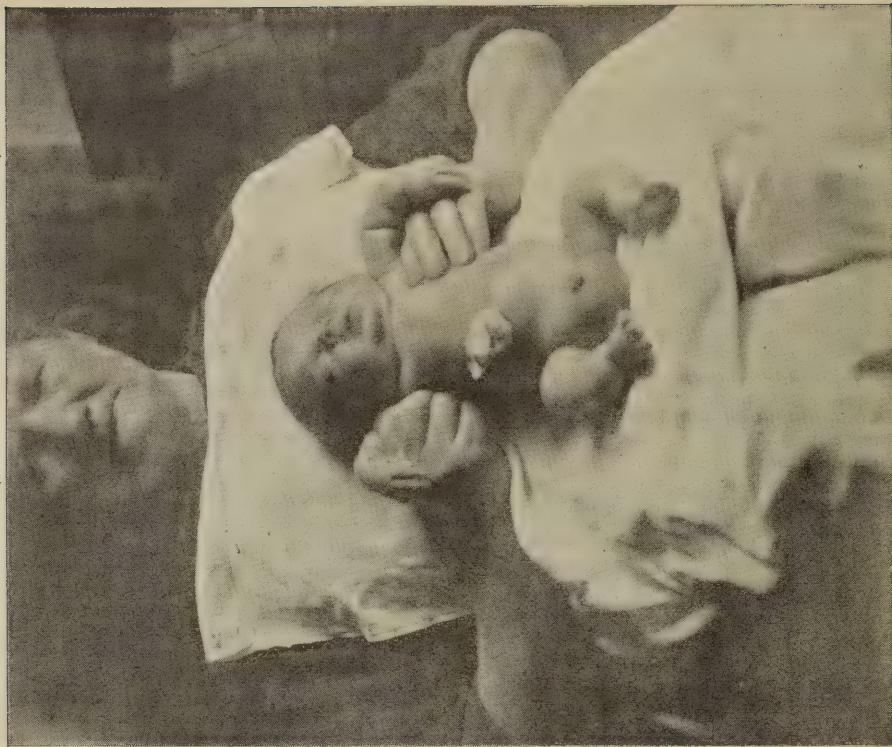
In considering the question of adoption of the decimal method of arithmetical calculation in this country, the discussions have often been restricted to the consideration of its application to coinage alone, whereas this is probably the least important part of the subject.

In pharmacy the serious difficulties which the absence of this method of calculation entails upon those in the English trade, and by reflection upon medical men, has been plainly pointed out by Mr. Martindale in his 'Extra Pharmacopœia,' and was referred to in this Journal for April.

In elementary education, the various tables of weights and measures which children have to learn involves an immense expenditure of valuable time. It is difficult enough in the present day to restrict learning to the capacities of young people, and for this reason alone a great deal would be gained by introducing the metric system.

The continuance of hot, dry weather has made more evident to our senses the unhealthy state of our London streets, and the insanitary condition of wood paving, to which I referred last month, continues to be discussed in the newspapers.

There can be no doubt that for sanitary purposes asphalte is by far the best kind of paving, unless, indeed, we are to have indiarubber, as suggested in the 'Public Health' department of this Journal for August. The cost of indiarubber is said to be prohibitive, but I do not know that this point has been determined.



Dr. C. W. TOWNSEND'S CASE OF CONGENITAL RICKETS



Dr. R. OSGOOD MASON'S CASE OF CONGENITAL RICKETS

CONGENITAL RICKETS

THROUGH the courtesy of Dr. Dillon Brown, the editor of 'Archives of Pediatrics,' published in New York, we are enabled to give the two characteristic illustrations which appear below. The first represents a case recorded by Dr. R. Osgood Mason, of New York, in the 'Archives of Pediatrics' for September 1894, and the second one by Dr. Charles W. Townsend, of Boston, illustrating a case which he brought before the American Pediatric Society last year.

'Case 1, by Dr. Osgood Mason.'—It was remarked that typical cases of congenital rickets are rarely seen in the United States, only three being known to Dr. Mason.

'The child was a female, born July 8, 1894, and lived three and a half days. On the father's side no case of consumption or scrofula of any kind has existed so far as he (the father) knows. On the mother's side they have all been healthy in the old country. There has never been any lack of good food in either family. A careful examination of the head after death convinced Dr. Mason that there were, properly speaking, no parietal bones. The head measured $12\frac{1}{2}$ inches in circumference, and the distance between the edges of the bones at the sides of the head was, by careful measurement, $4\frac{3}{4}$ inches. The whole of this wide space was without any symmetrical bony development, but it was partly occupied by several small, exceedingly thin, Wormian bones, unsymmetrically placed; and it was these bones, and only these, which gave the peculiar crackling sensation which was referred to in the report. The frontal bones were properly placed, but only partially developed, leaving a wide space even down to the nasal bones; the temporal, occipital, and facial bones were apparently fully formed.'

'Regarding the trunk and extremities, the deficiencies and deformities were more marked upon the left side. The clavicles were deficient in thickness. At the junction of the sternum and ribs the epiphyses were markedly, but moderately, enlarged. Both humeri were curved. The pelvis was decidedly undersized. This is undoubtedly an important point, as in acquired rickets it is so rare that the pelvis is affected. The femora were curved, and the tibiae also, the latter forming a sharp convexity to the front. Dr. Mason judged that a circle completed on the curve of the left tibia would not exceed $2\frac{1}{2}$ inches in diameter. The feet and hands were well developed. There was marked exophthalmia. Diarrhoea supervened, and the child died on the fourth day.'

'Case 2, by Dr. Charles W. Townsend.'—The parents were both young, healthy, and well formed, and there was no syphilitic or rachitic history. Their first child was three years old, well and strong, showing no signs of rachitis. During pregnancy the family were wretchedly poor; the mother had worried a good deal, and suffered from insufficient nourishment. The child, a male, was about a month premature. Labour was easy. The child weighed 7 lbs. and was 17 inches in length. The head was $13\frac{1}{4}$ inches in circumference, square in front, much flattened behind. The sutures were all widely open. Ossification of bones of skull deficient; several Wormian bones could be felt. The chest was small, $11\frac{3}{4}$ inches in circumference; depressed laterally. There was marked enlargement of the epiphyses of the ribs forming the characteristic rachitic rosary. The abdomen was large; it measured $11\frac{1}{2}$ inches at the level of the umbilicus. There was a large double inguinal hernia.

'The extremities were very rachitic, all the long bones were curved, and there were numerous fractures. All the epiphyses were enlarged. Both humeri were slightly curved anteriorly; also the bones of each forearm. The lower legs showed marked angular curvatures forward at the junction of the middle and lower thirds, so typical in extreme rachitis of infants.'

'Complete fractures existed at birth of both tibiae, of the left humerus, and of both bones of the forearm on the right side. The fractures were situated in the middle or lower third of the shaft, were complete, and were easily recognised both by the mobility and by the very marked crepitus. In the lower leg the fractures were at the point of greatest antero-posterior curvature.'

'These fractures, which have been observed in other cases of intra-uterine and congenital rickets, are due to the extreme brittleness of the bones—a late phase in the rachitic process—from defective calcification, large medullary spaces, and narrowed septa. The fractures may have been produced by muscular action of the foetus, or by the slight strain put upon them at birth, which, as I have noticed, was particularly easy. Some of the fractures united very quickly. The right humerus showed at birth a callus about the middle of the shaft, which points to repair of an intra-uterine fracture.'

'The child was artificially fed, and died on the ninth day, having been always cyanotic. It is to be regretted that the body could not be obtained, or even an autopsy made, but the accompanying photograph taken on the fourth day gives some idea of the case.'

Original Papers

CIRCUMCISION

By OLIVER H. FOWLER, M.R.C.S.

Being his Presidential Address to the Gloucestershire Branch
of the British Medical Association.

I HAVE selected the subject of circumcision for two reasons.

First, because the operation is just now very fashionable ; and *secondly*, because I have met with cases where it has been performed in a bungling manner, resulting in considerable deformity of the parts operated upon. Circumcision was formerly performed only for phimosis and other diseases of the prepuce, but now the surgeon is frequently called upon to circumcise, not because there is any scientific reason for doing so, but because it is supposed to be a preventive of certain ills and diseases. These facts are my excuse for bringing under notice the method of procedure which I have learnt to adopt, and which I have found to answer so well in preventing the occurrence of the various complications and troubles which sometimes have followed this apparently simple and easy operation.

As regards 'the reputed advantages of circumcision,' I cannot do better than quote Mr. Jonathan Hutchinson as follows :

'It is surely not needful to seek any recondite motive for the origin of the practice of circumcision. No one who has seen the superior cleanliness of a Hebrew penis can have avoided a very strong impression in favour of the removal of the foreskin. It constitutes a harbour for filth, and is a constant source of irritation. It conduces to masturbation, and adds to the difficulties of sexual continence. It increases the risk of syphilis in early life, and of cancer in the aged. I have never seen cancer of the penis in a Jew, and chancres are rare.'

My own observations quite bear out the truth of these conclusions ; and I would further refer you to the arguments of Erichsen ('Surgery,' ninth edition, 1888, vol. ii. p. 1188) and to those of Holmes ('System of Surgery,' 1883). It would seem that, if one may judge from their published opinions, the leading exponents of medical practice and opinion, in this country at least, are so pleased with circumcision and its results that they would willingly see the Mosaic laws in this particular extended to the whole Christian population, whether the latter be affected by phimosis or not.

But notwithstanding these weighty authoritative opinions in favour of circumcision, not only as a remedy but also as a prophylactic, many surgeons are opposed to it. For instance, Snow, in his 'Barbarity of Circumcision,' states that, as regards greatly enhanced local cleanliness, shaving the head or plucking out the nails would materially conduce to subsequent freedom from dirt. He also ridicules the idea entertained by the Jewish community that the Deity instituted the rite among the Israelites in order to promote greater purity and continence. This observer also remarks that, strange to say, some medical men who have investigated the question with opportunities of special experience, largely base their opposition to the practice of ritual circumcision upon the ground that removal of the foreskin in early life leads to premature sexual excitement and corresponding disposition to onanism ; and lastly, he maintains that what the Jews gain as regards avoidance of syphilis they lose in respect to gonorrhœa, as proved by Hutchinson's oft-quoted statistics from his practice at the out-patient department of the Metropolitan Hospital.

[Mr. Fowler then discussed the so-called and supposed disadvantages of circumcision, which he considered to be imaginary and not proved.]

How best performed. Next as to the best method of performing circumcision. This is one of the oldest operations, if not the oldest, of which we have any account. It is believed that it was known and practised at a date anterior to that of the Bible. Some cases have recently come under my notice in which very unsatisfactory results followed the operation : (a) a case where so much prepuce had been removed that the boy's penis represented a boar's, and was so unsightly that his father, who had been a public school man, regretted that he could never send his son there, because he would be so laughed at, and would be compelled to frequently show his penis ; (b) three cases in which the prepuce was adherent to the glans, producing constant irritation and soreness ; (c) a case in which the prepuce had been merely slit up and no mucous membrane had been removed, producing a most unsightly-looking organ ; and only the previous week I was called in to see a boy suffering from enuresis, who had been taken up to London to a leading surgeon to be circumcised, and yet such a fold of mucous membrane was left that on drawing it back it looked like a horse collar surrounding the glans, and when allowed to fall forward it resembled an Elizabethan ruffle. I could also mention several

other equally bad results, but the above will suffice. The ordinary text-books of surgery describe this operation in a few lines, giving no details whatever; yet I venture to suggest that, notwithstanding all ordinary care, difficulties and complications sometimes arise, causing trouble and annoyance, and I do not consider the operation so easy as one might be led to believe. I will not insult my hearers by describing the operation minutely, but will only point out three



FIG. 1

or four important points which are necessary to insure success, and which, if followed, will produce most excellent results. First of all, I maintain it is necessary to have a special instrument, which I now show (fig. 1), to secure the foreskin during removal, which prevents any *sawing* action (fig. 2). Then the incision must be made in a slanting direction from above, downwards and forwards, the *frænum* being left intact. The chief point is to remove plenty of the mucous membrane, one being more likely to err

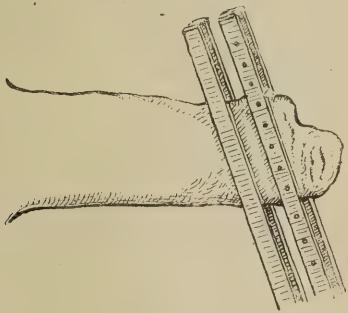


FIG. 2

by leaving too much than too little. In very young children sutures are not required; in older children it is better to use them. The edges of the mucous membrane and skin having been neatly adjusted should be kept *in situ* by a long strip of dry lint six to eight inches long and half an inch wide, as advocated by Mr. Paul Swain.¹ After the removal of this piece of lint, the nurse should be directed to daily pass a probe in the furrow round the glans to prevent adhesions.

For references to bad results in the hands of bungling operators, I would refer you to Bell's 'Manual of Operations in Surgery,' 1866; to Reginald Harrison's 'Disease of Urinary Organs,' third edition,

¹ *Vide 'Circumcision' in Heath's Dictionary of Practical Surgery, vol. i. p. 309.*

1887; also to Hyde, in 'Boston Medical and Surgical Journal,' June 26, 1890.

I am entirely opposed to the treatment of congenital phimosis by dilatation, as being tedious and most unsatisfactory. I have had to perform circumcision in three or four cases where this treatment had failed, although carried out with great care and perseverance. For phimosis or any other malformation of the prepuce I should always unhesitatingly advise circumcision and no other treatment whatever, but I have not yet learnt to advise circumcision as a fashion. I am fully aware that medical science in the present day aims at the prevention of disease, and I well know that it is equally our duty to prevent as well as to cure. We vaccinate to prevent smallpox, and many exclaim, Why not circumcise to prevent masturbation and other diseases of the penis? But I have personally not yet arrived at this exalted view of circumcision; but if this fashion continues, and eventually all males become circumcised, and as a consequence we are to have no more masturbation, a greater degree of chastity, little or no syphilis, and never any cancer of the penis, I for one shall hail circumcision as a national blessing, for assuredly a new, a brighter, a healthier, and a worthier chapter of mankind would be unfolded, so that if I came across a foreskin, I should, like the Psalmist of old, be induced to exclaim, Why encumbereth it the ground? See p. 92 for note on phimosis scissors.

THE VALUE OF TUBERCULIN AS A DIAGNOSTIC AGENT

By RICHARD T. HEWLETT, M.D., M.R.C.P.

Assistant Bacteriologist, British Institute of Preventive Medicine,
London.

The possibility, or even probability, of the spread of tuberculosis by meat and milk is becoming more and more recognised, and the question of prevention is occupying serious attention. It has been found that a considerable proportion of beasts which to all outward appearances are healthy show tuberculous lesions when slaughtered, so that a reliable means of diagnosis would be of great value. Tuberculin seems to be an agent capable of effecting this, though its use is not to be recommended in the human subject. In cattle, an injection of 1 to 2 c.c., according to the strength of the preparation, into the neck is followed in eight to twelve hours by a rise in temperature of

two, three, or four degrees if the animal is tuberculous; if it be healthy, there is no rise in temperature, or only an insignificant one. That the test is of great value, the following details and experiments of recognised authorities will prove.

Professor MacFadyean, in the 'Report of the Royal Commission on Tuberculosis,' says: 'I have no hesitation in saying that, taking full account of its imperfections, tuberculin is the most valuable means of diagnosis in tuberculosis that we possess.'

A. Eber, of the Veterinary College at Dresden, experimented on 174 beasts, and found that 136, or 78·2 per cent., gave a typical reaction with tuberculin; 6, or 3·4 per cent., gave a doubtful reaction (a rise of 1° or 1·5°); while 32, or 18·4 per cent., did not react. Of the 136 beasts which gave a typical reaction, 22 were slaughtered, and in all these tuberculous lesions were found; of the 6 doubtful cases, 3 were slaughtered, and in 2 tuberculous lesions were present; while of the 32 which did not react, 3 were slaughtered and were found to be free from tuberculosis. (Ref. in 'Centr. f. Bak.' xvii. 1895, p. 393.)

Professor Bang, of Copenhagen, injected 80 tuberculous animals with tuberculin; of these 73 gave a typical reaction, 2 gave a doubtful reaction, and 5 did not react. In the 2 which gave a doubtful reaction the tuberculous lesions were very slight, in the 5 which did not react the signs of tubercle were slight and not of recent date. (Ref. in 'Public Health,' August 1895, p. 392.) Professor Bang concludes that tuberculin fails in less than 9 per cent. of the cases. Where it fails, the lesions are either far advanced or are not of recent date; in these cases the reaction with tuberculin is not marked. It is to be noted also that the first injection is the important one, subsequent injections frequently failing to produce a reaction.

[See p. 93 for further notes upon this subject.]

CONGENITAL LATERAL CURVATURE OF THE SPINE

By NOBLE SMITH, F.R.C.S. EDIN.

Senior Surgeon to the City Orthopaedic Hospital and Surgeon to the All Saints Children's Hospital.

Congenital lateral curvature of the spine is a rare deformity, and in the majority of the cases which I have examined it has been accompanied by other severe deformities in the same individual. It may occur, however, as an independent affection, in which

case there is likely to be considerable difficulty in distinguishing between it and an acquired curvature.

I have made drawings of cases in the museums of the Royal College of Surgeons, St. Bartholomew's Hospital, and Guy's Hospital, and have found in these specimens characteristic peculiarities which help us greatly in forming a correct diagnosis during life. Before, however, describing these points, I will refer to an excellent paper upon the subject by Messrs. Willett and Walsham, in the sixty-third volume of the 'Medico-Chirurgical Transactions.' These observers describe the skeleton of a woman who died, at the age of thirty-one, of heart disease. There was considerable distortion of the thorax, involving the absence of four and a half vertebræ, absence of four ribs on the left and five on the right side, and depression of the sternum towards the spine, and other malformations.

There are but twelve and a half vertebræ (counting the bodies). The two upper are presumably cervical,



FIG. 1

the three lower lumbar, and the remaining seven and a half dorsal; these latter are considered to be the first, second, half the third, the fourth, seventh, tenth, eleventh, and twelfth. After describing other peculiarities, the authors remark that the second dorsal vertebra presents as usual two demi-facets on the left side of its body for the second and third ribs, but no distinct facets on the right side. The left half of the body is ankylosed to what appears to be the left half

of the body of the third dorsal. The right lamina and right half of the spinous process, and transverse process . . . are fused with the corresponding parts of the fourth dorsal vertebra, these parts of the third being wanting. The left half of the spinous process, the left lamina, and transverse process are distinct.

The right half of the third vertebra is wanting. Posteriorly, the left transverse process, the left lamina, and the left half of the spinous process are fused below with the fourth vertebra, and above with the second. It will be observed that the deficiency of the right half of the third dorsal vertebra, leaving only a wedge-shaped left half (see fig. 1), is the cause of the lateral curvature. After describing the other remarkable deformities of the bones of the thorax of this individual, some other specimens are referred to.

I have examined all these specimens, as well as others, and have made drawings, which are reproduced below.

Of the cases referred to by Messrs. Willett and Walsham, I have made abstracts of their descriptions.

(1) In St. Bartholomew's Museum a specimen, Series A, 133, now numbered 3473, is referred to in the Catalogue, only on account of a severe spina bifida, but 'the right half of the ninth dorsal vertebra is wanting.' I have made the accompanying drawing of this specimen (fig. 2), or rather of that portion of it which represents the deficiency and the curvature.



FIG. 2



FIG. 3.—DIAGRAM OF DEFICIENCY OF FIG. 2

The left half of the body, the left lamina, and left processes of the ninth dorsal vertebra are wanting. The left laminæ of the eighth and tenth vertebrae, which, as well as their bodies on this side, are in contact, appear overgrown, as if to make up for the deficiency of the absent lamina. The ninth rib on the left side is absent. The fifth lamina on the left side is in contact in the middle line with both

the fourth and fifth on the right side; and the fourth on the left side is in contact with, although on a little lower plane than, the third on the right. The bodies of many of the vertebrae appear bi-lobed.

(2) The next specimen referred to is No. 134, Series A, now numbered 3473, described in the Catalogue as 'part of a foetal skeleton from a case of hydrocephalus with spina bifida.' Most of the laminæ are separated as in the preceding specimen.

(3) Series A, 137, now numbered 3460. The dorsal spine is very irregularly malformed; the first dorsal vertebra is fairly normal, the second and third are represented by two distinct halves on the left side, but by a single half on the right side, the latter being opposite the line of division between the second and third half-vertebrae on the left side, so that it is difficult to say whether it is on the right half of the second, or the right half of the third, and consequently which half is deficient. The fourth vertebra consists of two distinct halves. The fifth is fairly normal, but obliquely placed. The right half of the sixth vertebra is absent; the seventh, eighth, ninth, and tenth appear bi-lobed, but otherwise normal; the eleventh and twelfth are normal. There are twelve ribs on each side; the upper nine on the left side are indescribably fused together from their tubercles to their angles, and the second, third, and fourth on the right side are likewise partially fused posteriorly.

(4) Series A, 164, now numbered 3444. Was described in the old Catalogue as 'the skeleton of a foetus in which the left lower extremity and left half of the pelvis are deficient.' It is pointed out by the authors of the paper referred to that the spinal canal is open in the lumbar and sacral regions through defect of the vertebral arches.

'One dorsal vertebra (probably the ninth), together with the corresponding rib on each side—*i.e.* the whole of one of the vertebral segments of the body—is wanting.'

The dorsal vertebrae above this one are normal except that some are bi-lobed. The two vertebrae below, presumably the tenth and eleventh, are represented on the right side by two halves, but on the left by a single half, to which the two right halves are united.

The left half of the eighth vertebra is upon a lower plane than the right half. The twelfth vertebra is normal; there is a lamina wanting on the left side, probably the eleventh.

On the left side the tenth rib is wanting, and the

eleventh and twelfth are fused together. There are but eleven ribs on the right side.

Although no lateral curvature appears in this preparation, yet such a deformity would doubtless have existed originally.

(5) Series A, 165, now numbered 3447. The old Catalogue referred only to the deformities of the lower lumbar vertebræ, the sacrum, and the pelvis and lower extremities, which are fused together.

No mention is made of the malformation of the dorsal spine. The cervical vertebræ are natural, except that the left half of the body of the fourth is absent. 'The body of the first dorsal is obliquely placed. The bodies of the second and third vertebræ appear naturally formed on the right side, but on the left side a single half-vertebra, to which they are both ankylosed, takes their place. The laminæ corresponding to the second and third on the left side, though somewhat malformed, are present. The bodies of the fourth and fifth vertebræ appear natural, except that they are bi-lobed and placed obliquely with their left sides higher than their right.'

The malformed vertebræ are shown in fig. 4.

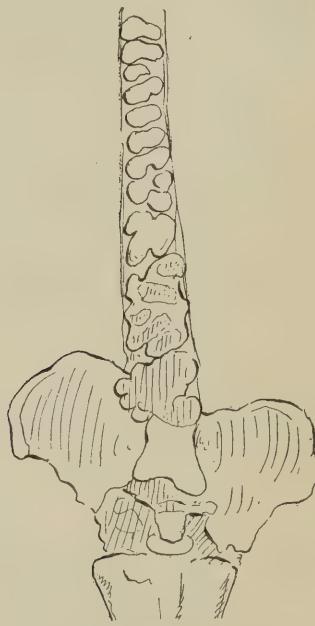


FIG. 4

(6) In the Museum of the Royal College of Surgeons, 2879 C.A., now numbered 2115 A, a skeleton of adult male, aged 64.

'In addition to other deformation, there is bony ankylosis along the front of the bodies from the seventh cervical to the fourth dorsal inclusive' (see fig. 6).

The left half of the first dorsal vertebra is apparently wanting, consequently the left halves of the

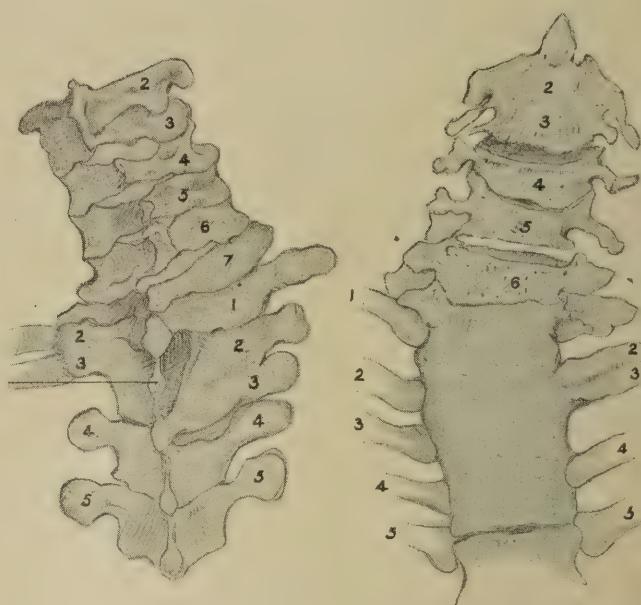


FIG. 5.—POSTERIOR VIEW

FIG. 6.—ANTERIOR VIEW

bodies of the seventh cervical and second dorsal are in contact. A slender process of bone representing the first rib projects from their line of union.

The laminæ of the seventh cervical do not meet in the middle line; the right lamina ends singly in the spinous process, the left is rotated downwards and ankylosed with the right lamina of the first dorsal, thus taking the place of the left lamina of the first dorsal, which is wanting.

The ribs are fused in several places. The laminæ and spines of the second and third dorsal vertebræ are ankylosed.

(7) Royal College of Surgeons Museum, No. 278. The Catalogue refers to the specimen as part of 'a hydrocephalic male foetus, with distortion of the vertebral column, defective development of the occipital bone, and defective closure of the vertebral canal behind.'

Messrs. Willett and Walsham refer to this specimen in the following words: 'In addition to the other malformations, the dorsal spine presents the following: The first dorsal vertebra is normal, the left half of the second dorsal is wanting, the third is normal but placed obliquely, the right half of the fourth is absent, and the remaining ten are normal except that the upper are bi-lobed. There are eleven ribs on each side, the left second and right fourth

being absent. The lumbar vertebræ are five in number and are normal.'

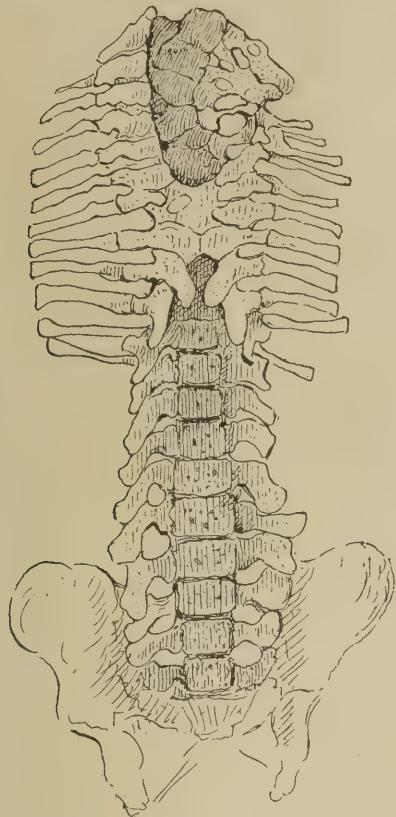


FIG. 7.—POSTERIOR VIEW, R.C.S. 278

It appears to me upon careful examination of this specimen that the existing part of the fourth dorsal vertebra is blended with the fifth (see fig. 8).

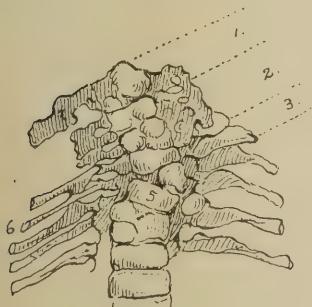


FIG. 8.—ANTERIOR VIEW, R.C.S. 278



FIG. 9.—DIAGRAM

In the Catalogue it is stated that there are apparently but five cervical vertebræ, and their laminæ are fused together. With regard to their bodies, there seem to me to be but three bones; the first representing two vertebræ, the second representing three

vertebræ, only the left half of the last being present (see diagram, fig. 9).

(8) 1004, 92, Museum of Guy's Hospital (see figs. 10 and 11), described in the Catalogue as 'a congenital malformation of the spine. This is caused by a fusion together of the bodies of the third, fourth, and fifth dorsal vertebræ and the curvature of the newly formed mass. A slight oblique fissure passes across the anterior part, whereby it is seen that the body (see fig. 10) of the fourth vertebra is

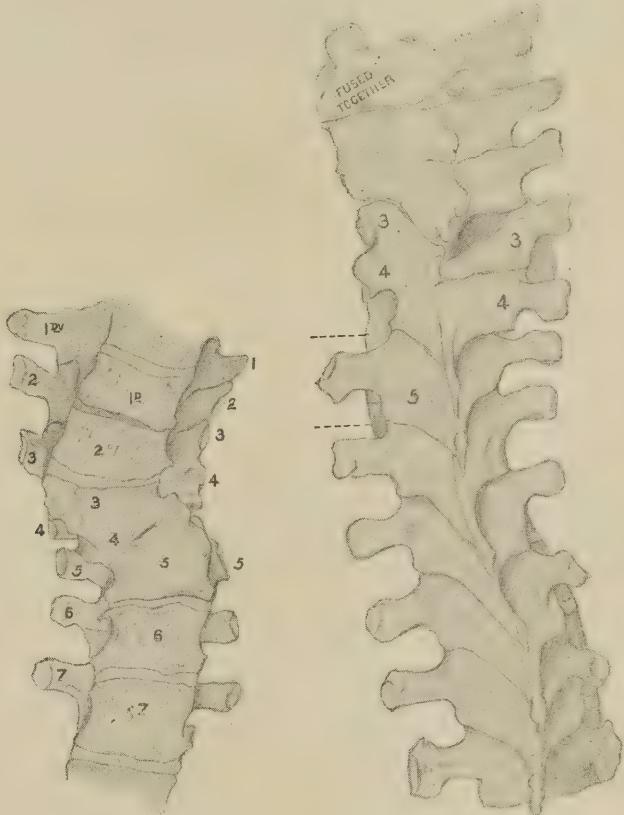


FIG. 10.—ANTERIOR VIEW

FIG. 11.—POSTERIOR VIEW
(Guy's Hospital Museum, 1004, 92)

wholly destroyed. Upon the posterior view, three transverse processes are seen to be perfect, those of the lower vertebræ retaining their natural position, and, respecting those of the other two vertebræ, on the right side the upper process is seen entering its proper body, and the middle one attached to a very small portion of the body of the fourth which remains on the left side (see fig. 11); the two upper transverse processes are fused together, and join the remains of the body of the third vertebra. The three spinous processes are correct in number, and the two lower ones come off from the remains of their respective

vertebræ in the usual way; but the upper spine is continuous wholly with the right arch of the third vertebra, the left arch of the bone not meeting the fellow at all (the two being developed separately), but is welded into the spinous process and arches of the vertebræ.' Dr. Goodhart—whose excellent paper in the ninth volume of the 'Journal of Anatomy and Physiology' is referred to—considers that the body of the fourth vertebra is well represented, being chiefly deficient on the right side, while the third is chiefly deficient on the left. Dr. Goodhart adopted Professor Humphrey's view that a vertebral body is sometimes

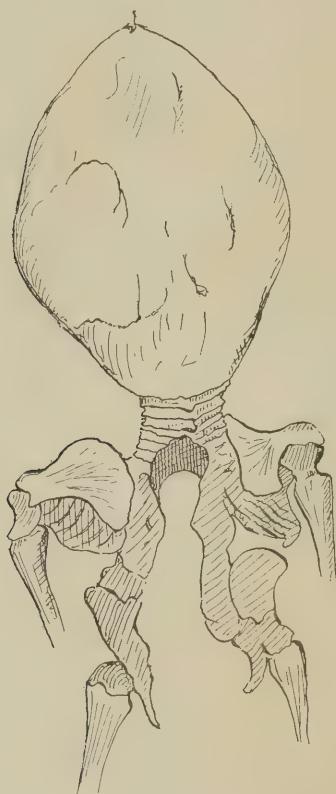


FIG. 12

developed from two nuclei, and that when only half a vertebra exists it is the result of only one such lateral nucleus having existed. But neither Professor Humphrey, nor Professor Flower, nor Meckel, has been able to find double nuclei in foetal spines. Messrs. Willett and Walsham have also examined a number of *normal* foetal spines with a like result. But the latter observers remark upon the bi-lobed appearance of so many of the malformed vertebræ already referred to; they examined some of the vertebræ in St. Bartholomew's Hospital Museum, and discovered

separated nuclei for the two halves of the bodies, and they very aptly remark that in that rather rare malformation of the spine in which, 'as the consequence of the non-union of the mesoblastic tissues around the notochord, the bodies of the vertebræ are vertically cleft in the middle line, it is evident that each lateral half must have been developed from two centres of ossification' (see fig. 12, a preparation in the Royal College of Surgeons). 'The presence of two centres in this specimen, we believe,' say Messrs. Willett and Walsham, 'can be shown to depend upon a similar, though much less evident, cause.'

'It would appear, then,' they continue, 'that under normal development there is no evidence of two centres ever occurring in the vertebral bodies, but that under certain abnormal conditions such may not infrequently be the case. We are not inclined, however, to admit that the suppression of one of these nuclei is usually the cause of the absence of one half of a vertebral body, though we are not prepared to say it may never be so. For we do not see how the suppression of one such centre in a vertebral body could account for the other malformations which so frequently attend upon the absence of half a body—namely, the absence of the corresponding arch processes and rib.'

They cannot admit the probability of a theory of defective ossification in explanation of these cases, but think it is more probable that 'these and similar abnormalities are really dependent upon some earlier departure from the normal process of development.' It is asked, 'Should they (these deformities) not be referred to some fusion, vacuolation, destruction, or non-differentiation of the formative cells or material out of which the parts are developed rather than merely to defects in the methods by which these parts are ossified? Is it not conceivable that they are due to some defect in the development of the mesoblastic elements constituting the vertebral and lateral plates of the embryo at or about the time of the primary segmentation into the proto-vertebræ or somatomes?'

The practical outcome of the above observations.—To discuss now the practical bearing of these cases, one may in the first place conclude that such malformations occur but rarely, and it must be more rare still that they occur in cases which are likely to come before the surgeon for treatment of the lateral curvature, because, as we have seen, this defect is usually associated with other such severe deformities, or rather monstrosities, that life—or at least, prolonged life—is hardly likely to occur.

Upon the other hand, the specimen of the adult at the College of Surgeons, that at Guy's Hospital Museum, the case recorded by Messrs. Willett and Walsham, and the cases at the Middlesex Hospital, are instances which might come before the surgeon, and which might give him much trouble in forming a correct diagnosis.

The correct diagnosis of such a case is a very important matter, because, although we may be able in some instances of congenital lateral curvature to assist the patient to some extent, yet we cannot expect to produce so great an alteration in the curvature as might otherwise be expected.

I propose now to consider some of the specimens above described, specially with a view to diagnosis.

The spine of an adult at Guy's Hospital Museum. In this specimen it will be observed that although the deformity of the bodies of the vertebrae is very abrupt and well marked, as seen from the anterior view, yet the line of deformity of the spinous processes as seen in the posterior view is not so severe. Yet the same abruptness occurs.

Features for diagnosis. (1) The deflection at the seat of deformity is more abrupt than in acquired lateral curvature. The position of the spinous process of the third dorsal vertebra is very much more to the left than that of the second.

(2) The absence of the continuation of the arch of this vertebra on the left side would also probably have attracted attention.

(3) There is an absence of rotation of the vertebrae in this part of the spine.

(4) The line of the spinous processes below the malformed part is more like the common curve of acquired deformity, and probably in this case it was acquired to compensate for the congenital curve; but it is peculiar in that the spinous processes project towards the convexity of the curve instead of towards the concavity, the latter being the case in ordinary lateral curvature (fig. 11).

Messrs. Willett and Walsham's case. Here also there is much abruptness in the curve, which is quite unlike the curve in acquired lateral curvature, and there is no rotation of the bodies of the vertebrae, and consequently there would be none of the deformity of the ribs which occurs in consequence of rotation (fig. 1).

The specimen at the Museum of the Royal College of Surgeons. Here again the angle of deformity is sharply defined, and the inequalities of the bones would have probably been noticeable (fig. 5).

Further, in the foetal specimens already described,

where there is deflection it occurs without any rotation of the vertebrae.

I have had under my care the case of a young lady, aged 12, whose spine presented a double lateral curvature in the dorsal and lumbar regions, the dorsal to the left and the lumbar to the right. These curves seem to have been produced to compensate for a sharp curve in the neck which I diagnosed as congenital. In the cervical curve there was no rotation, and the deformity presented sharp angles.

Since the above was written, I have met with five or six cases which I have thought were instances of congenital lateral curvature, and they all presented this abruptness of curve.

Congenital deformity and caries of the spine. Congenital deformity might simulate those rather rare cases of caries in which a lateral angle is formed, although there would generally be other distinguishing features.

Public Health

The escape of snakes considered as a nuisance.—The case which was heard by Mr. Hannay at the Marlborough Street police court on Wednesday, August 28, with the learned magistrate's decision thereon, is one of considerable interest.

An upholsterer of Great Portland Street was annoyed by the very frequent escape of snakes from his neighbour's, a naturalist. He applied to the sanitary officers of St. Marylebone, but the Medical Officer of Health for that parish did not consider the escape of snakes a nuisance properly coming under the Public Health Act of 1891: two stipendiary magistrates, Mr. Newton, who granted the summons, and Mr. Hannay, who heard the summons, are altogether of a different opinion.

It is certainly true that the definition of nuisance with regard to animals under the older Acts was more restricted; it defined as a nuisance 'an animal kept so as to be injurious to health,' while the more recent Act states, 'Any animal kept in such a place or manner as to be a nuisance or injurious or dangerous to health;' thus extending in a somewhat vague way the definition. There are plenty of decisions under the old Acts that cock-crowing, the barking of dogs, and so forth, were not included in the nuisance section. Possibly the amended Act does include such

nuisances. If, however, the magistrates are right in their interpretation, there is a summary remedy with regard to the escape from premises, not alone of snakes, but of ferocious or mad dogs, or any other animals. The writer does, however, think that the decision would hardly hold good in a superior court of law. The offence in this case was not for the 'keeping,' but for the 'escape,' and the general opinion among sanitary officers is that the subsection had rather in view the keeping of animals in a manner which causes more or less effluvia, and not mere annoyance or even terror.

The temperature and heat capacity of white- and dark-skinned races.—C. Eijkmann ('Virchow's Archiv,' Bd. 140, H. 1) has shown that there is no appreciable difference between human metabolism and heat production, whether in temperate or tropical climates; nor is there any difference between the metabolism in Europeans and Malays. He has now extended his researches to the question of skin radiation. The net result seems to be that the colour of the skin has no influence on radiation, nor has it on the conduction of heat. On the other hand there is always greater loss of heat among the white-skinned than the dark-skinned races, for the former perspire so much more freely. This may partly be due to the amount of liquid taken. A European, as a rule, drinks more fluid than the indigenous inhabitants of tropical climates. In 175 Europeans he found a mean axillary temperature of $37\cdot02^{\circ}$ C.; in the same number of Malays $36\cdot93^{\circ}$ C. The most interesting experiment was the following: Two thermometers were taken, the one bulb covered by a piece of white human skin, the other by a piece of dark (Malayan) skin; both were exposed under equal conditions to the rays of the sun. The thermometer covered with the white skin was always $2\cdot6$ lower than the thermometer covered with the dark skin; the pigment layer absorbing the rays of light and converting them into heat rays.

The tenacity of the cholera vibrio.—We are rapidly acquiring the unpleasant knowledge that the comma bacillus under certain circumstances possesses remarkable powers of resistance. Karlinski,¹ in a recent travel in Arabia, had the opportunity of experimenting with fresh dejections. The material was swarming with the cholera vibrio and was preserved in different ways, some in sterilised flasks and others on clean linen or woollen fabrics. These samples were tested from time to time. On the fabrics the

comma bacillus survived no less than 217 days. Hence it is possible for a garment saturated with cholera excreta to be dangerous over seven months afterwards.

Small-pox in Bristol, 1893-4.—The Medical Officers of Health for the city of Bristol (Messrs. Davies, Heaven, and Dowson) have issued an able and instructive report on small-pox in Bristol during the years 1893-4.

In the successive introductions of small-pox into Bristol the tramp, as usual, played a considerable part. The vagrant is by force of circumstances dependent for his movements on the weather. The bright sunny weather of February 1893, following the cold and frost of January, tempted him away from the big fire in the common kitchen of the lodging-house, and he started on his wanderings. During the winter of 1892-3 small-pox had become firmly established amongst the nomadic inhabitants of the common lodging-houses in many of the seriously infected north country and midland towns, so that the tramp already infected with small-pox carried it far and wide. Taking the incubative period as twelve days, a tramp can in this time go on his feet some two hundred miles, and not unfrequently he gets a cheap ride, so that the distances are in practice even greater. In old times typhus was in the same manner diffused, and dogged the footsteps from lodging-house to workhouse and from town to town. Dr. Henry Armstrong, of Newcastle, has shown that during the spring of 1893 small-pox was introduced by vagrants more than twice into twenty-four English districts: eighteen times into Blackburn, fifteen times into Keighley, and twenty-five times into Nottingham. The Bristol spring outbreak was an offshoot of this 'tramp epidemic.' Between February 17 and April 18 small-pox was introduced into the Bristol common lodging-houses on six different occasions, by tramps with the eruption out on them. These importations were successfully dealt with; but in the autumn of the same year, extending into 1894, there was a re-crudescence, and the total cases for the whole period amounted to 360.

The authors give a useful table comparing the incidence with regard to the vaccinated and unvaccinated in Bristol, Warrington, and Sheffield, showing that for ages below ten years vaccination gave a 23-fold immunity from attack; in Warrington a 19-fold immunity; in Sheffield an 11-fold immunity, and for the same ages in Bristol a complete security against death; in Warrington a 228-fold; in Sheffield

¹ *Centralbl. f. Bakteriol.* Bd. XVII., Nos. 5 and 6.

a 381-fold security against death. At ages above ten years in the three places there was from a 2- to 3-fold immunity against contracting small-pox, and a 10- to 26-fold security against death from small-pox. There are also tables showing clearly the attenuation of the influence of the vaccine by efflux of time. As an exceptional case is recorded the death of a child aged thirteen from small-pox, the child having been vaccinated in infancy; an equally exceptional instance is that of a child born in the small-pox hospital during the early convalescence of its mother from a discrete attack. Although the child remained in hospital with its mother for twenty-one days, it did not contract small-pox. Attempts were made to vaccinate the infant, but it was found to be insusceptible to vaccination. Apparently the immunity was due to placental absorption of an antitoxin, another proof of the identity of small-pox and vaccinia. Dr. Auches, 'Gaz. des Sciences Médicales de Bordeaux,' 1895, from a series of cases of small-pox in pregnant women, concludes: 'If small-pox attacks the mother during pregnancy, different results may follow. When the child is born the period of incubation may be in progress; small-pox, in that case, is manifested after a few days' interval; or the child may be born in small-pox or bearing the marks of the disease; it is refractory to vaccination. If the child has neither had small-pox during the foetal period nor been born with it, and if the birth takes place whilst the maternal incubation period is in evolution, or when the eruption is out or suppuration is going on, it will be susceptible to vaccination; but if at a later period of the disease, it will then be immune—an immunity lasting from a few months to two or three years.'

Epitomised Lectures and Papers

THE INDUCTION OF PREMATURE LABOUR IN CASES OF ALBUMINURIC RETINITIS

By SIMEON SNELL, F.R.C.S. Edin.¹

Ophthalmic Surgeon to the Sheffield General Infirmary.

A PAPER upon this subject, but entitled 'On the Relation of Retinitis Albuminurica to the Induction of Premature Labour,' was read before the North of

England Obstetrical and Gynæcological Society at Sheffield on March 15, 1895. Mr. Simeon Snell referred to the fact that the association of retinitis with Bright's disease is indicative of a very limited period of life, frequently only months, and that when retinitis exists with albuminuria the sight is very likely to be lost unless premature labour be induced.

The gravity of the retinal affection, as shown by the changes in the fundus, is not always commensurate with the defective vision complained of by the patient, and for this reason it is desirable that pregnant women with albumen in their urine should at intervals undergo ophthalmoscopic examination.

Now it has frequently been found that when labour terminates improvement in sight is apparent, and in this way the induction of abortion came to be advocated.

The gravity is far greater when the albuminuric retinitis occurs during the first months of pregnancy.

Mr. Simeon Snell described some very instructive cases, and summed up by stating his opinion as follows:—

(1) For retinitis appearing before or about the sixth month induction of labour should be recommended. (2) That when it shows itself only in the last few weeks interference may often be unnecessary, but that each case must be judged by the severity of the affection. (3) That a case in which retinitis has shown itself in one pregnancy should be carefully watched, both as to the presence of albumen in the urine and as to the eye affection, and treatment adopted accordingly.

OVERCROWDING IN THE MEDICAL PROFESSION AND ITS REMEDY¹

By W. MITCHELL BANKS, M.D., F.R.C.S.

Surgeon to the Liverpool Royal Infirmary.

Dr. Mitchell Banks had been 'painfully struck' with the frequent reference to the very small fees which in certain departments, notably that of midwifery, many members of our profession are forced to accept, the physical labour, the mental fatigue, and the harassment and anxiety expended by many of our brethren upon their cases being utterly disproportionate to the value of the fees which they receive. 'Why is it,' asked the lecturer, 'that these discrepancies exist?' His answer was that there are

¹ *British Medical Journal*, June 22, 1895.

¹ *Liverpool Medico-Chirurgical Journal*, July 1895.

too many of us—in fact, that it is a matter of over-crowding.

'At the present day the desire is for life in towns, where there is activity and energy and rivalry and companionship. A quiet life in the country is not in accord with the temper of the times, and men fly to the haunts of men.'

'Every man who has long taught students becomes sententious; he invents proverbs. I have long ago,' said Dr. Banks, 'invented one to the effect that in religion and medicine the public like being quacked; they deliberately prefer it. Just look round the circle of your acquaintances. They understand a business bargain. You can't take them in over buying a house or a piece of land. They appreciate to a penny the wares of the greengrocer or the milliner. But you have only to take a bread pill, and "bill" the intervening space from the pyramids of Egypt to the cañons of the Rocky Mountains with posters which announce that the pill will cure every disease from chicken-pox to cancer, and you will make a huge fortune, which you will no doubt bequeath to charities when you die, as a kind of *quid pro quo* for having robbed your fellow-men during a long lifetime. A man comes to consult you, whose ailment is clearly due solely to his manner of living. You give him honest advice about this, show him how he must alter his

habits, and tell him he doesn't require physic. He has no sooner got on to your doorstep than he proclaims you a fool, and proceeds to dose himself with Elliman's Little Kidney Pills, or Beecham's Embrocation, or Siegel's Gore Mixture. Both in his religion and in his medicine the average man doesn't want to hear common-sense; he wants to have something that will cure his soul or his body at once, by some supernatural means, and if you can lie hardly enough to him, he will swallow any dogma or any pill you like to stuff down his throat, and pay handsomely for it too. I cannot be accused of exaggerating, when one considers the vast numbers of persons who have voluntarily paid for Harness's Electric Belts and Count Mattei's Cure for Cancer. But the result of all this to us, as a profession, is very serious, for it is a direct inducement to us to prey upon the credulity of our patients, and I do not believe there is another body of men to be found anywhere which makes such strenuous efforts to be honest as we do in spite of very great temptations to the contrary. It was all very well for Monsieur Talleyrand to tell the poor devil who said that he had to live that he saw no necessity for it. The poor devils insist on living in spite of Monsieur Talleyrand; and if they cannot live honestly, well, then they will live the other way. Go down any big street in the north end

Henry Earle

BORN 1789, DIED 1838, AT THE AGE OF FORTY-NINE

HENRY EARLE was the third son of Sir James Earle, Surgeon to St. Bartholomew's Hospital, and grandson of Percival Pott, his mother having been Pott's daughter.

He became a member of the Royal College of Surgeons when he was nineteen years of age, and was then appointed House Surgeon to St. Bartholomew's Hospital. He became Assistant Surgeon at the age of 26, and full Surgeon at the age of 38 upon the resignation of Abernethy.

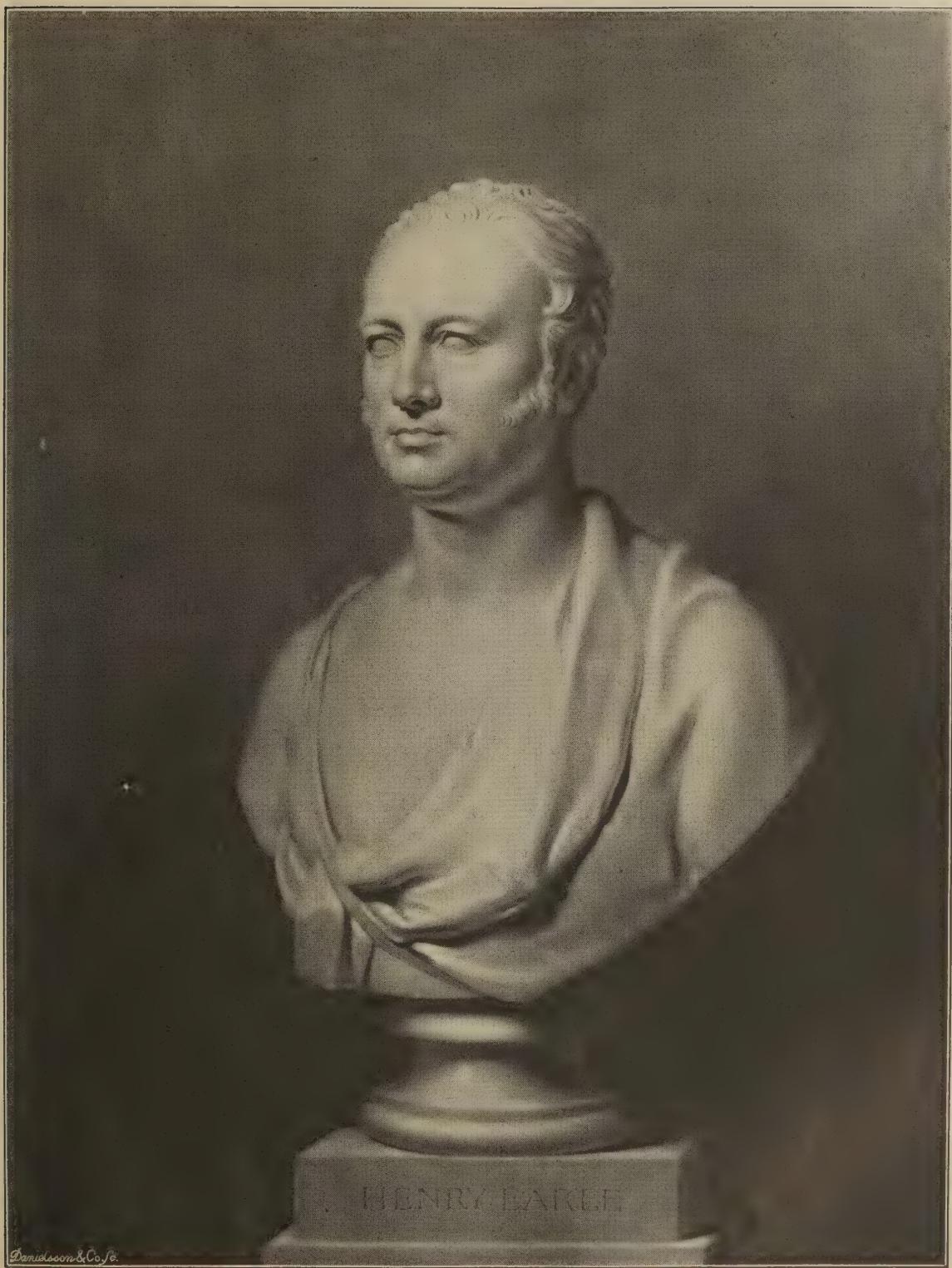
Eighteen years later (1833) he was made Professor of Anatomy and Surgery at the Royal College of Surgeons, and subsequently, when Queen Victoria came to the throne, he was made Surgeon Extraordinary to her Majesty.

His contributions to medical literature were as follows: twelve papers in the 'Medical and Chirurgical Transactions,' two papers in the 'Philosophical Trans-

actions,' 'Practical Observations on Surgery,' 'Injury to the Urethra,' 'The Mechanism of the Spine,' 'Injuries near the Shoulder,' and 'Fractures of the Thigh-bone.' He also published 'Two Lectures on the Primary and Secondary Treatment of Burns.'

Earle distinguished himself very early in his career at the Hospital by inventing a special bed for patients with fractures of the legs and with diseases of the spine. For this invention he received in 1812 a reward from the Society of Arts, and in 1821 the same society conferred upon him a second and larger prize.

In 1813 he obtained the Jacksonian Prize for an essay on the diseases and injuries of nerves. A very noteworthy incident in his career was the introduction by him at St. Bartholomew's Hospital of a course of clinical lectures, which was quite a new institution.



Danielsson & Co. Sc.

of Liverpool, and before you have gone far you will come upon a shabby-looking shop, which has evidently remained empty for a long time till occupied by the present tenants. The window is blackened, but its dulness is relieved by gold letters which inform you this is a dispensary ; that Dr. Dosem, Physician, Surgeon, and Accoucheur, is in attendance from 9 A.M. to 9 P.M. ; that medicine and advice are given for the moderate sum of sixpence, or even threepence, and that vaccination is performed at a phenomenally low figure. If you come back in a month or two, you will find that the dispensary has been let to a green-grocer, but Dr. Dosem has transferred his large and lucrative practice to another shop in a back slum of Manchester.

Dr. Mitchell Banks then referred to medical appointments to clubs. You are asked what is the lowest figure at which you will take such office. Subsequently you learn that there is a neighbouring practitioner, who has been entertaining the gentlemen who manage the club to pipes and whisky in his sitting-room, and that he has agreed to take the post at sixpence a head less than you had announced as your minimum. We ask how such miserable things can be done by educated gentlemen, the members of a liberal profession ; but Dr. Banks replies that these are not educated gentlemen. They are men who should never have been in the ranks of our profession at all. They are, he said, I admit, sorely tempted. Mostly they have wives and children dependent on them, and clamouring for bread. Practice does not seem to come their way, and still the butcher and the baker must be paid ; and so they naturally say to themselves, if we cannot live honestly we must live as best we can. I am charitable enough to believe that this is the case in the majority of instances, but there are not a few men who have simply the instincts of small shopkeepers. Their point of view of practice is identical with the point of view of a small grocer or third-rate chemist as regards his takings. They adopt, positively by choice, the mean and sordid part of their profession. One of these men frankly told me, some years ago, that he did not care a fig for his profession, nor for the respect of his professional brethren. He wanted to get hold of money, and money he would have, however he got it.

Then Dr. Banks referred to the view held by some of us that the authorities ought to put down such degrading practices as he had alluded to. Such an idea, he said, is weak in the extreme. Law will never

do anything for us. Lawyers have always banded themselves together to resist any improvements in their own profession, and they have no sympathy with us in our efforts to purge ours of its impurities. 'I remember years ago a foul monster in Liverpool, who imposed upon the poor of a certain district. Apart from his doings as a charlatan, he was a man of notoriously filthy life, and this was known to all. For a certain improper act, which ended in the death of a woman, he put his neck within the noose of the law. His counsel at the trial represented him as a man specially gifted by the Almighty with a faculty of healing, who was being persecuted by a parcel of narrow-minded ignorant doctors, who wanted to repress true genius of every kind. The judge said nothing against him, the jury acquitted him, and the public in court cheered the verdict ; and yet, if ever a man was guilty, that blackguard was. A short time afterwards this man, to whom God had granted His special favour to enable him to cure his fellow-men of their diseases, killed himself by poison in a drunken frenzy. No, gentlemen, you need never expect anything from the law, for neither counsel, judge, nor jury sympathises with you.'

The General Medical Council can never be expected to put down all the rascals in and out of our profession. Only the other day they tried a certain man. They could not legally convict him, and he was discharged, but that one trial cost the profession 600*l.*

Some thought that the professional examinations should be made more severe ; but this, he pointed out, was impossible. In fact, owing to the external cramming to which the student is subjected to master his subjects, he loses all power of thinking or reasoning for himself. He is being reduced to a mere grinding machine, which has to be constantly stocked up with scientific pabulum. And if you increase the number of subjects and examinations, you will only send out machine-made men in place of hand-made ones. Dr. Mitchell Banks considered that there ought to be a rough sieve supplied at the very beginning, and that all who cannot get through this sieve should be cast on one side. As things stand at present, any man who gets through an entrance examination will ultimately get a qualification of some kind, which will enable him to put 'Doctor' on his door-plate, with just as much effect as a graduate in honours of the London University. He should be turned back at the very commencement, and not encouraged to throw away years on unavailing work.

As to his remedy, it consisted simply in 'stiffening up the entrance examinations.' He had heard an argument raised by old-fashioned educationalists, viz. that there ought to be two orders of medical men—a set of poorly educated, common ones, who should doctor the poor; and a set of highly educated, well-bred ones, who should doctor the rich. It will occur to everyone who knows anything of the past that this is simply a reversion to the bad old days of the apothecary and the physician, an arrangement which more than anything else contributed to prevent our profession in England for many generations from obtaining that proper position in society to which it was entitled. He considered this a cruel and shocking doctrine. By admitting it we should bring into the profession a set of men who were to be its Pariah dogs—whose lives were to be spent in back slums among the poor, living upon what may be termed medical garbage, and going on from one weary year to another without hope of amendment.

Dr. Banks then went on to consider the subject of medical education, and referred to a paper in which some terrible mistakes in spelling occurred, which he mentioned. Now, the gentleman who wrote this must have passed an entrance examination about eighteen months previously. What sort of an examination must it have been? He sincerely trusted that something would be done to improve these preliminary examinations, which were now so carelessly carried out. When once a man has passed through the portal of an entrance examination, you can practically do nothing to him. It is at that portal that he should be stopped, and directed to some other path in life.

Finally, Dr. Mitchell Banks urged that we had need of a great deal more of cohesion amongst us. He thought we ought to form a sort of 'trade union,' and that there was nothing derogatory in the title. He thought that we must diminish our numbers by keeping out unworthy applicants, and unite together more thoroughly to support our collective interests.

ANTIVENENE, THE REMEDY FOR COBRA POISONING

M. CALMETTE has prepared antivenene from horses and asses. He injects very small quantities of the cobra poison, to which is previously added a certain quantity of chloride of lime. The dose is gradually

increased in the usual manner of preparing anti-toxines.

Mr. Reed, of Herschel, in South Africa, describes the case of a dog bitten by a cobra. It was treated with ammonia and recovered, and subsequently, although often bitten by various snakes, was not harmed, apparently showing that the first inoculation rendered the dog immune. Messrs. Phisalix and Bertrand have also investigated the subject, and quite recently papers have been published by T. R. Fraser, M.D., F.R.S., Professor of Materia Medica and Therapeutics at the University of Edinburgh. His first experiments went to prove the powerful effect of antivenene when injected subcutaneously.

The experiments were made with the blood serum (antivenene) of rabbits which had received by subcutaneous injection (during months) either uniform non-lethal doses of venom or gradually increasing doses until the last was thirty to fifty times greater than the minimum lethal dose. It was only when the larger doses had been administered that immunity was produced.

In administering antivenene after an animal had been poisoned by a cobra bite it was found that even if the first single dose proved insufficient, life might still be saved by repeated injections.

Thus 0·5 c.c., per kilo of the animal's body weight, having been found to be about the smallest quantity of antivenene which could prevent death when administered thirty minutes after rather more than the minimum lethal dose of cobra venom had been injected, the insufficient dose of 0·4 c.c. of antivenene was injected after the thirty minutes had elapsed.

In three hours very serious symptoms arose, which, however, were subdued by subsequent injections of 0·6 c.c. and afterwards 0·5 c.c. of antivenene.

In actual practice, Dr. Fraser thought that it would be advisable to inject the antivenene, in the first instance, into the part where the venom had been received, before the ligature, so widely recognised as valuable, had been removed—if it had been possible to apply this ligature—even before the tissues surrounding the wound had been excised.

Supply of antivenene.—Antivenene can be had in a fluid form, or as a dried preparation, but soluble in water.

In the dry state 11·5 parts represent 100 parts of the liquid serum, so that about 2·3 grammes would

represent 20 c.c. of liquid antivenene. It will probably be found, continued Dr. Fraser, that 20 c.c. will be a sufficient initial dose—to be repeated in half an hour or an hour, or even a third or fourth dose should the symptoms of poison not subside.

Dr. Fraser warned his hearers that it was highly probable that the remedy would fail in some cases, either from the very large dose of poison absorbed in the first instance, or from too great a length of time having elapsed between the poisonous bite and the injection of the remedy.

Since the above observations were made, Dr. Fraser has brought before the British Medical Association the results of further researches.

Immunity from stomach ingestion of snake poison.—Experimenting upon a cat, it was found that the internal administration of cobra venom in repeated doses rendered it immune; also, of two kittens born during the experiment, one was found immune, but the other succumbed, probably to the largeness of the dose.

Two experiments were also made in which antivenene was administered thirty minutes after rather more than the minimum lethal dose of cobra venom. 0.5 c.c. per kilo of the animal's weight sufficed to restore the animal, after manifesting only slight toxic symptoms. A full account of Dr. Fraser's experiments appears in the 'British Medical Journal' for August 17, but we think we have given sufficient to show the present aspect of the subject, and to demonstrate the great value of the work already done in this important investigation.

TETANUS TREATED BY ANTITOXIN

Dr. Marson, in recording a case,¹ has collected 'all the procurable published and unpublished cases of tetanus treated by antitoxin up to the present time.'

	Recoveries	Deaths
Total number of cases collected, 38, including cases that are only mentioned as having been treated, no further particulars being given	25	13
Number of cases treated, of which particulars are given, 22	17	5
Number of cases treated, of which particulars are given and which were regarded by their recorders as 'severe,' 9	5	4
Ditto, 'not severe,' 13	12	1

¹ *Lancet*, August 10, 1895.

Dr. Marson adopts the statement that the mortality of tetanus in chronic cases is 50 per cent., and in acute cases 90 per cent. In this Journal for April, page 110, we published two articles upon tetanus antitoxin. Shortly afterwards appeared the account of a case reported by Matteucci ('Rif. Med.', April 22) of a man whom he had seen a month earlier suffering from tetanus, in which the symptoms included risus sardonicus, opisthotonus, and rigidity of the lower extremities. There was no history of injury, and no suspicious scar could be found. The attack was attributed to a chill. Eight days later the symptoms had increased. His speech was unintelligible, the finger could not be introduced into the mouth, and about twenty attacks of spasm per hour occurred. Tizzoni saw the patient and injected 30 c.c. of antitoxic serum (1 to 10 millimetres immunising powder). Urticaria and pyrexia followed (temp. 103.7° F.) and profuse sweating. 10 c.c. were repeated each day for three days. The patient steadily improved and recovered.

Injections of morphia were also used. This case is interesting; but it is the traumatic cases which are the less amenable to ordinary treatment, and for which we look for a successful remedy in antitoxin.

Dr. Hewlett collected (see this Journal for April) forty-two cases of tetanus treated by antitoxin, nearly all of which were traumatic. Fifteen died and twenty-seven recovered, showing a mortality of about 36 per cent.

We would refer our readers to the articles above alluded to, especially to the one which described Dr. Hewlett's work upon this subject as Assistant Bacteriologist at the British Institute of Preventive Medicine.

Dr. Washbourn, Physician to the London Fever Hospital, Assistant Physician to Guy's Hospital, &c., in his remarks on serum therapeutics at the annual meeting of the British Medical Association, sums up our knowledge upon this subject as follows :

'The value of the remedy is the most important point to decide, and I feel that, with the evidence at present available, we are not yet in a position to arrive at a correct conclusion. There are many difficulties in the way. The disease is a rare one: only a few cases have been treated, and extensive statistics of the mortality before and after treatment are not forthcoming. In addition, no single clinical observer has recorded many cases, and conclusions derived from isolated cases collected from the journals are liable to the objection that all cases have not been recorded.'

'In a recent number of the "Medical Chronicle," Dr. Kanthack has analysed the cases hitherto published. From his figures it would appear that the treatment is useless in acute cases with a short incubation period and rapid onset of spasms, while the chronic cases, with long incubation period and slow onset of spasms, often recover; but this latter class of cases frequently do well with other methods of treatment. A definite opinion cannot be formed until a much more extensive trial has been given to the remedy. It must be remembered that in tetanus there is no characteristic lesion at the spot of infection, and a diagnosis is only arrived at when the disease has far advanced; consequently treatment is commenced at a late stage, and analogy with the experiments conducted upon animals renders the prospect of success not very hopeful.'

Also see Dr. Klein's remarks under 'The Discussion on Serum Therapeutics,' p. 85.

HYPNOTISM

If there remain any doubt in the reader's mind as to the position which this subject should occupy, we would refer him to an article in the 'New York Medical Record,' by Dr. Charles Prentice, of Chicago (May 4, 1895).

Americans are practical people, and the article in question certainly abounds in sound common sense.

Dr. Prentice asserts that 'the easiest subject for hypnotism is the neurasthenic, whose general supply of vital force for various functions is very limited.' This view is opposed by Dr. Boulting (CLINICAL SKETCHES for May), but is that generally held in this country.

'We must remember,' writes Dr. Prentice, 'that thought or ideation, of whatever nature it may be, is a process that requires nerve impulse for its performance, also that a pain consists of an abnormal nerve impulse.'

'Suggestion that gives rise to the so-called hypnotic, psychologic, or mesmeric condition may act through the medium of any one or a combination of any of the five senses. . . . If a person who was familiar with the taste of various poisons were to enter a dimly lighted apothecary's shop and carelessly swallow a dose of something supposed to be a sweet cough mixture, and the dose suddenly proved to be intensely bitter, he

might at the time think he had taken a dose of strychnine, and a change in the action of the nerve-centres would take place commensurate with the condition of the person and his surroundings. I have known such an action to produce complete prostration, but when it was learned that the bitter dose was quinine the recovery was rapid.

'The smell of smoke in a high building difficult of egress might suggest the idea of a horrible death by fire, and varying conditions would result in the nervous system of the persons so frightened.'

Other similar instances are given of the effect of suggestion by circumstances. 'When the imagination is sufficiently excited by suggestion, there is so excessive a call upon the nerve-centres for vital force to sustain the exalted ideation that all other functions for the time being are robbed of the limited vital impulse that they were previously supplied with. The nerve-impulse that gave rise to the functions of feeling, motion, and reason are perverted, and where pain existed the abnormal impulse that gave rise to the feeling of pain has been turned aside and utilised in the strong imagination that has been awakened.'

Connecting these views with hypnotism, Dr. Prentice proceeds to remark that 'hypnotism or suggestion is the diversion into other channels of those nerve-impulses that give rise to feeling, motion, or reason; they are turned aside from the performance of normal functions to execute other kind of work.'

'At present the people in several sections of our great republic are running wild over the question of hypnotism. Many of these unthinking minds have been led to believe, whenever a buffoon raises his hands and makes certain meaningless motions, that they are bound to become helpless and follow whatever suggestions are made. Excessive fear and awe are the results of this belief, and an exalted excitation of the nerve-centres results which may actually produce what is called the hypnotic state, but where this belief does not exist, and where there is an disbelief as to this mysterious force, however weak the subject may be, these methods fail to hypnotise.'

'I remember a mesmerist who, several years ago, was lecturing in a small town in Ohio. He had succeeded in exciting quite a large number of the community. The audience of his nightly lectures grew until the opera-house would barely hold them. He was very much reassured by his success, and invited the opinion of any member of his audience. A professional gentleman walked to the rostrum, and set forth, in a very clear and concise manner, opinions

similar to those in this article. From that time his so-called hypnotic power ceased, and of the ten objects on the stage who had been obeying his suggestions, there were but two who continued to do so. These were strangers to the community, and I afterwards learned from one of them that they were both under his pay at a salary of \$15 per week. It is not necessary for a hypnotist to resort to this trickery, for if a firm belief in the mysterious force exists in persons of weak nervous system, they can undoubtedly be hypnotised. It is now high time for thinking professional men to come to the assistance of the unthinking masses, and teach them that it is as unnecessary to yield up reason and thought to the gyration of the hypnotist's arms, as it is to the whirling of a merry-go-round.'

Hypnotism and crime.—‘But recently one of our courts has acquitted a murderer on the ground that he was hypnotised. Other murderers are already taking advantage of the precedent and endeavouring to escape the penalty of their heinous crimes by assuming that they were hypnotised. In all ages of history crime has been committed. There have been arch-conspirators who suggested to their followers criminal acts. In all of our ancient, mediæval, and modern literature, in all the records of criminal law, we can see that there were arch-conspirators and their followers; people who suggested crime and those who committed it, and whenever any of these were convicted they were punished according to law. The fad of hypnotism had not been born, and they were suffered to die for their murders.’ Has such action been an injustice? ‘We act upon good or bad suggestion according to our training. A man looks in through the window of a bank, sees a large stack of bills and gold; it suggests to him that if he could break into the place at night, and open the vault, it would bring him ease and comfort. He follows the suggestion and commits the burglary. Should he be exonerated because he was hypnotised by inanimate things? Another sees a man put a large bundle of bills into his pocket and start for his home in the distance. It suggests to him that he could rap him on the head with a club and appropriate the money for his own use, and he does so. Suggestion has hypnotised him to do the act.’ The author gives other illustrations of a similar kind.

What Dr. Prentice wished to point out was ‘that there need be no transference of a mysterious force from the operator to the subject to bring on hypnotic

states, inasmuch as inanimate surroundings are adequate to produce a similar effect.’

Considered in the light of the above hypothesis it is an easy matter to account for the changes that take place in so-called faith cures. It is probably a fact that many deranged functions have been restored to a more normal action through an effect in the nerve-centres brought about by suggestion in the form of Christian science, hypnotism, or faith cure.’

In conclusion the writer repeated that ‘hypnotism or suggestion is the diversion into other channels of those impulses that give rise to feeling, motion, and reason. They are turned aside from the performance of their normal functions to execute other kind of work.’

ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION IN LONDON, JULY 1895. ABSTRACTS AND QUOTATIONS

[In giving these abstracts and quotations, only salient points will be dealt with. The reader who wishes to read the full accounts is referred to the ‘Journal’ of the Association.]

The discussion on serum therapeutics. The nature of antitoxin was described by Dr. E. Klein in his usual lucid and thorough manner, and we only quote a very few of his remarks.

‘At the outset I wish to state that from a scientific point of view the value of antitoxic serum is experimentally so well founded and so easily confirmed that it would be little short of astounding if also in the human subject it did not affirm itself satisfactorily.

‘The view that the condition of acquired resistance and acquired immunity is due to specific substances present in the blood and tissue juices is not quite a new one—it has been expressed in a variety of ways in former years; but what is new, however, is the experimental proof that such antibodies do exist in the blood of an animal that has been artificially immunised, as also in the blood of human beings that have acquired immunity by having passed previously through an attack of the disease.

‘The experimental researches of Behring and Kitasato on tetanus and of Behring on diphtheria leave no doubt that by repeated injections of animals with small and at first weakened, but gradually increasing and non-virulent, doses of either the living culture or the specific toxins (tetanus toxin or diphtheria toxin respectively), a state of gradually increasing resistance is acquired by these animals against these diseases, and that this resistance is proportionate to the amount of antecedent injections; further, that as the resistance increases the blood attains an immunising power in increasing proportion, not only as regards the subject from which the blood is derived, but

also as regards a new subject; that is to say, that the formation and presence of these antibodies become not only increasingly marked in the animal which is being immunised, but if injected into a fresh animal they are capable of furnishing this latter with a proportionate degree of resistance against subsequent infection. Lastly, they have shown that the immunising power of such blood serum comes into action even after infection has already taken place—that is, the blood serum has a therapeutic action.'

Protective action of antitoxin. Two kinds of serum. It is highly probable that the serum possesses two different actions, namely (1) antitoxic, and (2) immunising action, which do not necessarily run on parallel lines, for we have seen that the serum prepared by Behring's or Roux's method (that is, by injection of pure toxin in the animals subject to immunisation), though possessed of a high antitoxic power, has a comparatively small immunising action, whereas with the serum obtained from animals subjected to immunisation by living culture the latter power is predominating. This would indicate that if serum is to be used for protective or immunising purposes only—for example, in the case of children, nurses, and attendants not affected with diphtheria, but who have been in contact with cases of diphtheria—a serum of high antitoxic power is not required; a serum of high immunising power will be more to the point. And in view of these considerations it might be possible to combine in the immunisation of animals both processes—namely, injection of pure toxin in order to produce a high antitoxic condition, and of living bacilli, by which the immunising or germicidal action becomes also increased. In this way it is to be expected that a serum might be obtainable which has not only a high antitoxic power, but also to an equal degree a high immunising action.'

Antitoxin treatment compared with tuberculin treatment. Dr. Washbourn remarked that 'the failure of tuberculin was due to the fact that the experimental proof of its value rested upon insufficient evidence. The application of the treatment to the human subject was attempted before it had been proved to be efficacious in the case of animals.'

'The principle of serum therapeutics rests upon an entirely different basis. Careful and accurate experiments have shown that the blood serum of highly immunised animals possesses remarkable therapeutic properties.'

The practical results. Dr. Washbourn remarked that 'from a careful and critical examination of the statistics hitherto published, I have no hesitation in saying that they definitely prove the vast superiority of

the antitoxin treatment over any other method of treatment that has hitherto been adopted.'

'We will now consider what evidence is obtained by the clinical method of the efficacy of the remedy. The value of this evidence depends entirely upon the reliance we place upon the opinions formed by the individual observers. In reading the literature of the subject, I have been struck by the fact that almost every observer who has had a large experience of diphtheria speaks in the highest possible terms of the value of the remedy; while criticism has come from those who have had only a slight experience of diphtheria, or little personal experience of the antitoxin treatment. I would maintain that both statistical and clinical evidence definitely proves that in antitoxin we possess the most valuable remedy that has ever been used in the treatment of diphtheria.'

The use of antitoxin as a prophylactic measure. With regard to the use of antitoxin as a prophylactic measure I have but little to say. The protection afforded is not likely to be of long duration, and the chances of contracting diphtheria after exposure are not great; so that it is only in exceptional cases that a preventive injection would be required.'

May antitoxin treatment set up nephritis? Dr. Foord Caiger, Medical Superintendent to the South-Western Fever Hospital, whose experience has been large, remarked: 'It has been stated, I feel sure without sufficient evidence, that antitoxic inoculations are liable to set up nephritis and suppression of urine. I can only say that we have carefully watched for these results, and that we have been altogether unable to confirm them. We have found nothing, either clinically or in the *post-mortem* room, in cases of diphtheria treated with antitoxin which was not also to be found in those which died before the remedies were employed.'

The serum treatment of tuberculosis. Dr. E. Maragliano, of Genoa, communicated an important paper upon this subject.

His researches had extended over three years, resulting in the discovery of a serum having a specific curative action on tuberculosis.

He has obtained this serum from dogs, asses, and horses 'by procedures different from those hitherto adopted, absolutely discarding cultures of living bacilli,' and availing himself 'exclusively of the highly toxic principles' extracted from them.

He tested the serum by injecting it, in combination with tuberculin, in tuberculous individuals, when no reaction followed, although a decided reaction resulted with tuberculin alone.

Dr. Maragliano had tried the serum clinically in eighty-

two cases, including all forms of pulmonary tuberculosis, from the gravest to the slightest.

The mechanism of the curative action of the serum is believed by the author to be that by means of it defensive materials are introduced into the organism, where they lead to the production of others. He deprecates any exaggerated expectations in advanced stages of the disease, when there exist profound lesions of tissue, and he emphatically declares that 'antituberculous serotherapy can be of use, and can reasonably be expected to effect a cure, only in those cases of pulmonary tuberculosis in which no destructive foci exist.'

The duration of the disease is a secondary matter. The important points are the extent, intensity, and nature of the pulmonary lesions. Another point of great moment as regards the result of treatment is whether one has to do with simple tuberculous infection or with a mixed infection. The association of diplococci and streptococci with the bacilli of tuberculosis retards or altogether neutralises the effect of the treatment. Haemoptysis is not a contraindication, and indeed Professor Maragliano does not admit any contraindication whatever; he insists that the treatment is applicable in all forms of pulmonary tuberculosis. It is never injurious, and nearly always does good.

In cases in which there is no pyrexia, Professor Maragliano begins by injecting 1 c.c. on alternate days for ten days; then he injects 1 c.c. every day for ten days; finally, two injections of the same quantity are given daily for ten days. When there is pyrexia an attempt should be made to subdue it by high doses, and 10 c.c. of serum should be given at once. If the temperature does not rise again, after three days a daily injection of 1 to 2 c.c. should be given; if, however, the fever persists, a second injection of 10 c.c. should be given eight days after the first. The beneficial effects of the treatment show themselves sometimes within a fortnight, sometimes not till after a couple of months. Even when cure seems to be complete, the treatment should be continued for at least a month, and Professor Maragliano thinks it would be well by way of precaution to give a weekly injection of 1 c.c. for at least a year. General hygienic treatment (climate, nourishing food, and particularly careful attention to the efficiency of the digestive apparatus) must on no account be neglected.

Resolutions passed at the General Meeting of Members of the Association.—In August we published three of the resolutions passed at a General Meeting of the Members of the British Medical Association.

Two of these had reference to the proposed registration of midwives, and expressed an adverse opinion regarding this measure, while advocating the registration and education—or, as it ought, we take it, to be expressed, the education and registration—of medical, surgical, and obstetric nurses.

The third resolution had reference to the desire—a very natural one—that the Council of the Association should undertake 'to protect both the individual and collective interests of the medical profession.' To be thorough this ought certainly to include the collection of debts, but how much further it is expected to extend remains to be explained.

There were two other resolutions passed. The first aimed at obtaining the use of workhouse infirmaries and other institutions now closed to medical students for clinical teaching, and the other at an increase in direct representation on the General Medical Council. We give below the full text of these latter resolutions, merely remarking that the meeting at which they were passed appeared to be a fairly representative one, and the members present undoubtedly felt very strongly upon the objects of the resolutions, which, we believe, passed *nem. con.*

Proposed by Dr. LOVELL DRAGE.—That we view with deep concern and regret the recommendation of the General Medical Council to the medical examining bodies that they should admit students to their final examination who present a certificate stating that they have 'conducted personally' only three, and 'been present at' only nine, confinements; and as the General Medical Council has refused, on November 1890, to alter this recommendation, we instruct our Council to petition the General Medical Council to recommend that no student be admitted to his final medical examination until he presents a certificate showing that he has personally conducted at least thirty confinements under the direct supervision of a registered medical practitioner. We also instruct the Council to take immediate steps to have section 20 of the Metropolitan Poor Act, 1869, repealed, which prevents workhouse infirmaries from being used for the clinical instruction of medical students in practical midwifery, while pupil midwives are now admitted; and also to petition the committees, medical staffs, and, if need be, the subscribers to the City of London Lying-in, the British Lying-in, and the Clapham Maternity to withdraw their rule which excludes male medical students from clinical instruction at these hospitals, seeing that these are now used by pupil midwives.

Proposed by Dr. RENTOUL.—That as sections 7 and 8 of the Medical Act, 1886, provide for the election of only five direct representatives to the General Medical Council by the registered medical practitioners resident in the United Kingdom, and as section 10, subsection 1, paragraph c of this Act provides that the General Medical Council may represent to the Privy Council that it is expedient to confer upon the registered medical practitioners resident in any part of the United Kingdom the power of returning an additional number of direct representatives to the General Medical Council; and as the General Medical Council has, on November 1890, on November 1891, and on November 1892, refused absolutely to make such representation, and as the number of registered medical practitioners has increased from 22,713 in 1876 to 32,634 in 1894; and as we medical practitioners were not given our due and proper number of direct representatives in 1886; and as the registered practitioners contribute all the income of the General Medical Council, by which the Medical Acts are administered, while the twenty

universities and colleges represented on the General Medical Council do not contribute any income to it; and as the representatives of the universities and colleges are elected to the General Medical Council by their small Convocations, Senates, and Councils, and not by open vote of all their medical graduates only; and as other important councils, having similar but larger duties to the General Medical Council (such as the Councils of the Incorporated Law Societies of England and of Ireland, the Councils of the Pharmaceutical Societies of Great Britain and of Ireland, and the Council of Veterinary Surgeons), consist of direct representatives only, this Association instructs its Council to take immediate steps to have a Bill introduced into Parliament providing that the registered medical practitioners in England and Wales be empowered to elect five additional direct representatives, the practitioners resident in Scotland one additional direct representative, and the practitioners resident in Ireland one additional direct representative to the General Medical Council.

NURSES UNDER THE POOR-LAW IN THE WARDS

It is apparent that although the central authority—*i.e.* the Local Government Board—has issued to all boards of guardians the same circular respecting the nursing of the sick in workhouses, yet the degree of attention accorded to this circular has varied considerably.

By some guardians the circular (issued in January of the present year) has been as completely ignored as were similar documents in the past; others, regarding the board's recommendations with marked consideration, have already augmented the numbers and improved the pay of their nursing staffs.

The question of night nursing has probably provoked more discussion than any other to which attention has been drawn by the Local Government Board; opposition being made in many quarters to the provision of paid night nurses for the sick, the aged, the helpless, and the dying inmates.

Guardians who employ trained nurses for day duty consider, sometimes, that they are unnecessary at night, and therefore decline to engage them to do night duty. Having tacitly acknowledged the need of skilled nursing, it appears somewhat inconsistent to wish it suspended during the hours when most deaths occur, and when the feeble as well as the acute cases demand especial attention.

There can be no doubt that a night nurse's presence is conducive to discipline. Decency, order, cleanliness, and quiet can hardly exist in wards left without supervision.

The circular mentioned remarks that 'the guardians should be satisfied that the nursing staff by day and by night is in numbers fully equal to the proper nursing of the sick, and they should give their most careful consideration to any representations which may be made to them on the subject by the medical officer of the workhouse in the discharge of his prescribed duty. They should also be careful when they make appointments of nurses that the persons appointed are, by training and experience, fully equal to the responsible duties which they have to discharge.'

These recommendations have been followed for years past in certain metropolitan and provincial infirmaries. Such institutions are well known as admirable training schools for probationers, both in theoretical and practical work.

If the days are more monotonous and the probationers' lives less eventful in Poor Law infirmaries than in general hospitals, the former institutions are still full of interest to those whose ambition it is to qualify themselves for head nurses' posts in infirmaries. They get day and night duty in turn, for night superintendents and nurses form an important feature in the staff of these institutions.

In the sick wards of country workhouses where there are no separate infirmaries, the nursing is far inferior, but the untrained 'nurse,' or the unpaid pauper, is gradually being superseded even there by the educated and competent nurse. In places where she has to work single-handed the workhouse nurse is seldom 'off duty' by day or by night; she is liable to be called up at any moment by the 'sitter-up' with a bad case. Sometimes two old women divide the watching between them, each taking half the night, and as they are about during the day their watchfulness at night is problematical.

In some places it is the custom for night duty to be carried out by an 'able-bodied' inmate who goes to bed in the ward, and who has to be awakened and persuaded to rise by the sufferer needing attention. As the so-called 'able-bodied' are persons supported by the rates on account of their inability to support themselves, they are seldom mentally, morally, or physically fit to look after other people.

If superintended constantly they make fairly efficient wardmaids, but they naturally fail disastrously as nurses, and it is lamentable to know that to them alone the sick are still sometimes obliged to turn in their extremity.

Whilst general hospitals are forced to refuse

hundreds of applicants for training in the course of the year, 'Nursing under the Poor Law' is not yet fashionable. Many shrink from the incessant hard work they hear talked of, and others dread the constant intercourse with the sad types of humanity which congregate in workhouses.

Yet recruits are forthcoming, and doubtless will appear in larger numbers as the urgent need for good workers becomes realised. There is much real nursing to be done in the infirmaries, and in time the country guardians will doubtless learn that they must sanction more hands to do it, and pay fairly for skilled labour. Now and again some one protests at a board meeting against the efforts at reform made by his colleagues, defending existing evils because the inmates 'have not complained.'

As regards the amount of training required of nurses applying for appointments under the Poor Law, guardians seem to hold somewhat elastic views. The Local Government Board can refuse to sanction improper appointments, but this does not prevent occasional attempts to install young girls or uncertificated midwives in opposition to the plainly stated instructions to the contrary. 'A woman with some experience' is frequently put forward as a suitable candidate by zealous friends, who are as ignorant as herself that nursing is an art that must be thoroughly learnt, and that experience must be acquired for the benefit, and not at the expense of, the sick poor.

Another hindrance to the introduction of proper nursing arises sometimes from the continuance in office of an elderly woman who has done her best for half a century, and has therefore a claim on the consideration of the ratepayers. This long-service plea is used as an excuse for keeping on a person who is unfit for work, to the discomfort or detriment of those to whom her 'care-taking' has become merely nominal.

This matter received attention in the circular of April 1892, when Dr. Downes wrote: 'Much evil frequently results from the continuance in office of nurses long incapacitated by ill-health or advancing years. It is obviously very desirable to guard against this, by enabling nurses to retire when they are no longer able to discharge their duties with efficiency. The guardians are aware of the powers which they possess as regards granting superannuation allowances, and attention may be especially directed to the facilities which are now afforded to nurses for making provision against sickness and old age.'

The Practitioner's Note Book

Local anaesthesia by infiltration.—This method was instituted by Dr. C. L. Schleich, of Berlin, and experimentally shown by him during the Congress of German Surgeons at Berlin last year.

Dr. O. Bloch, of Albury, has written upon the matter to the 'Australasian Medical Gazette' for June 15, and the 'New York Medical Journal' has also published an article upon this subject.

Whatever may be said of local anaesthesia, its many drawbacks have made it practically useless in the large majority of cases in which any anaesthetic is required. The patient is not so much under the control of the surgeon, and is liable to suffer from the moral effect of the operation. The parts are altered in appearance, and assume a different position from what would otherwise be the case. Moreover, the injection of fluids is not without danger.

Freezing the parts has been found in some instances a useful local anaesthetic, but the change in the appearance of the part interferes considerably with the satisfactory performance of even small operations.

Local infiltration, although possibly useful in some cases, does not seem to us to be likely to prove of much practical advantage.

This new method, which may be called the infiltration method, says Dr. Bloch, is based on a perfectly new principle, or rather on two. It establishes a local oedema in whatever tissue and at whatever depth the knife may have to work in. It uses, as a vehicle to bring about this oedema, a fluid which, while not destroying protoplasmic life and not being injurious to the general health, deadens, for the time being, the sensitiveness of the area of infiltration and interrupts the nerve conduction within it. This vehicle is a 0·2 per cent. solution of ordinary table salt, to which is added a minimum of narcotics, such as cocaine, morphine, or codeine, in a concentration far below the dangerous dose, even though large quantities of the fluid should be injected. If a certain area of any tissue, says the author, is thoroughly infiltrated by a 0·2 per cent. salt solution, it becomes anaesthetic, in consequence partly of the specific action of the solution on the nerve tissue, and partly through the combined effects of the ischaemia, compression, and local decrease of temperature produced in the oedematous area. The cooler the injected fluid, the more effective it is. Schleich uses three solutions, in which the 0·2 per cent. chloride of sodium solution is combined with cocaine and morphine (or codeine) in various degrees of strength; the slight addition of carbolic acid is made to keep them aseptic.

The table salt ought to be heated and the distilled water boiled before making up the solution, to insure asepsis; the cocaine and morphine are naturally germ-free.

Solution	I.	II.	III.	In English Measure		
	0·2 grm.	0·1	0·01	4 grs.	2	$\frac{1}{5}$
Cocaine hydrochloride .	0·025	0·025	0·005	$\frac{1}{2}$,	$\frac{1}{2}$	$\frac{1}{10}$
Morphine hydrochloride .	0·2	0·2	0·2	4 ,	4	4
Sodium chloride .				4 fl. oz.		
Sterilised distilled water .	100 grm.			4 fl. oz.		

Add three drops of a five-per-cent. solution of carbolic acid.

The solution No. 2 is that generally used; No. 1 may be used in much-inflamed tissues. No. 3 is very often sufficient and especially useful in protracted operations, when, by using No. 2, the maximum dose of the narcotics would be approached. It will be seen that about two ounces, or fifty Pravaz syringefuls of twenty minimis each, of No. 2, or twenty ounces, equal to five hundred syringefuls of No. 3, can be injected before the maximum dose of cocaine (or morphine) is reached, and practically even double the quantity would still be without danger, as we shall learn, from a more detailed description of the technique, that the whole amount is not injected at once, but in minute quantities at a time, and at least half or two-thirds of the injected fluid is washed away by the blood or oozes out from the wounds without being absorbed into the system.

A rare form of post-partum haemorrhage.—Surgeon-Captain Leahy, of the Indian Medical Service, calls attention¹ to a condition of the uterus after labour in which the external appearances would lead one to believe that that organ was in a state of moderately firm contraction, whereas internal examination shows that it is in a condition of tonic spasm.

He refers to a paper in the 'Comptes Rendus du Congrès Périodique International de Gynécologie et d'Obstétrique,' in which Dr. R. A. Gibbons describes this very rare condition, and Surgeon-Captain Leahy records two cases in his own practice.

CASE 1: Normal labour. History of previous floodings, causing the surgeon to take great care after delivery.

In third stage, after expulsion of placenta, the uterus was grasped and kneaded. 'It seemed to contract well, was fairly hard, but continued large and felt somewhat irregular.' Then haemorrhage set in copiously. The hand was introduced into the uterus, clearing out clots. Hot and iced water, and the placing of ice within the uterus, failed to stop the bleeding. The patient seemed on the verge of death, and as she fainted the uterus first relaxed and then rapidly and regularly contracted. The patient recovered.

The other case was somewhat similar. Dr. Gibbons recommends an anaesthetic as the best form of treatment, and Surgeon-Captain Leahy thinks it probable that recourse to such a remedy might have proved serviceable in his cases.

The bicycle and medical practice.—Until quite recently there has been a feeling among medical men that

SKETCHES

to do their rounds on a bicycle or tricycle was undignified, and therefore not judicious, and without doubt this idea was a well-grounded one. Fashion, however, has made a great change in this matter, and not in one part of the world alone, but apparently in all quarters of the globe.

In the 'New York Medical Record' we read a quotation from the 'Post-Graduate' which is much to the point, and amusing.

'The use of the bicycle has expanded and developed from a salutary athletic exercise into a great social obsession. It has seized upon every class of society, both sexes, all ages, and every condition of life. It is taken up by the well because it makes them feel better, by invalids because it makes them feel well, by tired people because it rests them, and by the rested because it makes them feel tired. The fat ride to get thin and the thin to get fat. It has displaced the horse, and in women has, in a measure, replaced the uterus. It has made the simple and ancient custom of walking most unpopular; it has cut down the function of the steam-car, and competes successfully with the suburban trolley. The doctors have taken it up and expressed their approval of it, and we are far from saying a word in opposition. The bicycle has come to stay, though not with quite the omnipresent activity which it now enjoys. Already we notice grave and reverend seigniors in our profession riding along the cobble-stones in their golf suits instead of lying comfortably back in their victorias. Time that used to be spent in serious scientific pursuits at the hospital, in the laboratory, and at the desk is now shortened in order to enjoy a ride up the Boulevard. The bicycle has cut down the scientific activity of the New York profession at least fifty per cent. already.'

We would strongly recommend those who are not in some way debarred from ever riding a bicycle to select that machine in preference to a tricycle. By so doing they would avoid the disadvantage which has been spoken of of coming to their patients flushed and in a state of profuse perspiration, for the ease with which the bicycle can be ridden would enable the doctor to do his short distances with certainly far greater ease than walking, and with far greater advantage to himself than driving.

The promiscuous use of pocket-handkerchiefs.—At a recent meeting of the Dublin Sanitary Association, the president, Dr. J. W. Moore ('Provincial Medical Journal,' August 1), remarked upon the spread of coryza by the common use of pocket-handkerchiefs. 'One of the commonest maladies is "cold in the head," or, as it is technically called, "coryza." It is notoriously infectious, or "taking," and the means of communication is the discharge from the nostrils, which is popularly termed "a running from the nose." I am satisfied from repeated observation that this trouble-

¹ *Lancet*, August 3, 1895.

some affection often spreads through a family of children and then through an entire household through the promiscuous use of pocket-handkerchiefs. A little child comes to mother or nurse with the piteous request, "Blow my nose." This is carelessly or thoughtlessly done with the parent's or attendant's pocket-handkerchief, which thus becomes infected and spreads the attack. In other cases the soiled pocket-handkerchief is allowed to dry without disinfection, and the dried discharge from the diseased mucous membrane of the nose is then diffused through the air, spreading the malady just as measles is spread.'

These remarks might be applied to phthisis as well as to coryza.

The dangers of kissing.—Dr. Moore also referred to kissing in the following words: 'At the risk of being considered unromantic and prosaic in the extreme, I must describe kissing—especially kissing on the lips and mouth—as a more or less dangerous practice. Familiar instances of the spread of disease in this way are met with in the case of common colds, most forms of sore throat, including the terrible diphtheria, many of the eruptive and continued fevers—for example, typhus, small-pox, measles, and pneumonia or inflammation of the lungs. It is believed that Princess Alice, Grand Duchess of Hesse and mother of the Empress of Russia, lost her life by kissing her little daughter Mary, dead of diphtheria.

'The rule then should be, either not to kiss at all those who are sick, or to imprint the kiss on the hair or forehead or cheek, never on the lips.'

Contamination through letters.—The same lecturer spoke of the evil possibly arising from letter-writing. If a measles patient sneezes over a sheet of note-paper, it becomes infectious. A convalescent from scarlatina or erysipelas or small-pox may send any of these diseases hundreds of miles through the post. Many years ago one of my patients at the Meath Hospital, when recovering from facial erysipelas, infected at least two persons in Co. Sligo by means of a letter. In this connection, also, there is reason to fear that infectious diseases are sometimes spread through the agency of money, and particularly of paper money.

In this matter we would again call attention to the use of paper handkerchiefs. They are very cheap, and can be burnt after use.

New Apparatus

BY THE EDITOR

THE following case was that of a patient who, among other troubles, was suffering from considerable œdema of the legs, the surface of the skin being affected with severe eczema. I do not propose to discuss the nature of the disease, but simply to state that one great point of treatment was to support the tissues and to reduce the œdema.

The patient did his best to keep his legs raised from the ground, but his other ailments and his enormous stoutness (he weighed 26 stone) made it impossible for him to avoid keeping his feet somewhere near the ground. He slept at night in a chair with a raised foot-piece, but he could not lie recumbent.

Various kinds of bandages were tried, but were not satisfactory, as they invariably got moved out of place in a very short time. Elastic stockings were also difficult to apply, especially on account of the constant change in the size of the limbs. I had one pair of elastic stockings made to lace, which enabled me to accommodate the altering size to some extent. The next best contrivance was stiff canvas, made in the form of gaiters to lace. Whatever was used had to be changed two or three times a day, on account of the great amount of exudation from the skin.

Eventually I devised the following contrivance, which answered admirably, and by means of which I

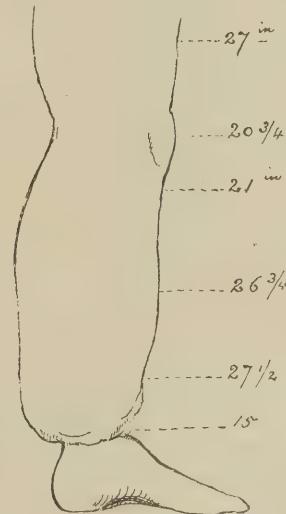


FIG. 1

was enabled, in two days, to reduce the size of the legs more effectually than I had ever been able to do previously.

Fig. 1 represents the appearance of the leg and gives the circumference at the various points indicated. It will be noticed that there was hardly any oedema of the feet.

The supporting apparatus consisted of a series of elliptical pieces of stout leather (fig. 2, A A). Only two

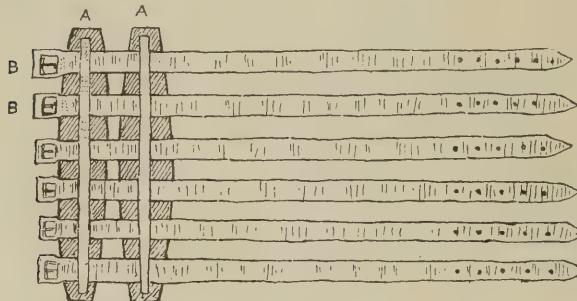


FIG. 2

are shown, but about eight or nine were used, the exact number depending upon the size of the legs. Some were made narrower than others. These pieces of stout leather were kept in place by the straps B B. The stoutness of the elliptical pieces kept the support from collapsing from above downwards, a result which no other appliance had been able to effect. Any

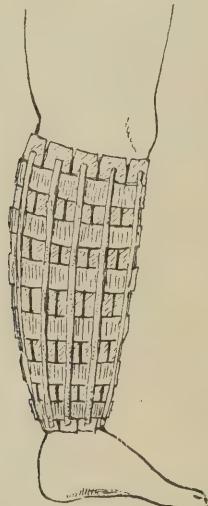


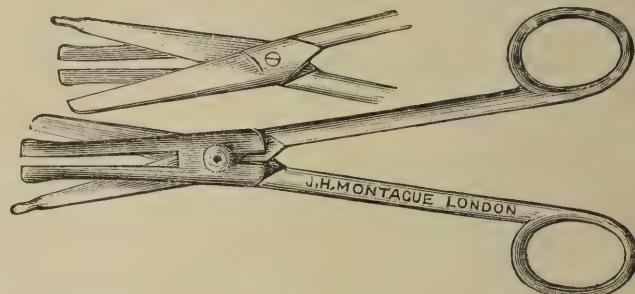
FIG. 3

necessary pressure could be applied to the legs, and the comfort given was very considerable. Fig. 3 shows one of the legs with the bandage applied.

PHIMOSIS SCISSORS

Another apparatus besides the one referred to by Mr. Fowler is the phimosis scissors invented by

Mr. Eric France, M.B., House-Surgeon to the Belgrave Hospital for Children. He considers that his scissors take the place of three instruments: acting as forceps for clamping the foreskin, as scissors or knife for its removal, and as director on which the mucous membrane is divided. Moreover, only one hand is occupied by the instrument instead of two. This instrument consists of a pair of straight-bladed scissors, the lower blade being prolonged as a probe-pointed director for three-sixteenths of an inch. Underneath these scissors,



and attached to them by a thumb-screw, is a shield with a slit in it as shown above; the prepuce is to be drawn forward into the slit of the shield until the under surface of the prepuce is in close contact with the bottom of the slit, care being taken that more of the dorsal than of the under surface is drawn through, so that the frænum may be spared and the foreskin cut off in an oblique manner.

The shield is then turned back out of the way, and the projecting probe-point of the lower blade passed up beneath the mucous membrane, which is divided, separated from the glans, and trimmed away.

The instrument is made by Mr. J. H. Montague, of 101 New Bond Street.

Therapeutics

A new antidote for opium poisoning.¹—Dr. William Moor, of New York, has been experimenting for over a period of two years upon the treatment of poisoning by opium and its alkaloids, especially morphine, by the administration of permanganate of potassium, and he has come to the conclusion that this salt is a true antidote. He now confirms the statements which he made in the 'New York Medical Record' of February 17, 1894, in which he stated that a solution of permanganate of potassium will decompose sulphate of morphine infinitely more rapidly than it will decompose albuminous water matter. He demon-

¹ *Brit. Med. Journal*, June 22, 1895.

strated the astonishing selective faculty of permanganate of potassium for morphine by mixing 250 grains of the white of an egg with one ounce of water, dissolving in this mixture 1 grain of sulphate of morphine, and adding rapidly to the whole just one grain of the permanganate dissolved in one ounce of water. After thoroughly mixing, not a trace of morphine could be detected, which conclusively proves that the molecules of the antidote instantaneously selected the molecules of morphine without being interfered with by albumen, though the quantity of the latter so greatly exceeded the quantity of morphine. One grain of permanganate oxidises exactly 1 grain of morphine.

The writer stated further: 'Being extremely susceptible to the action of narcotics, I consider myself a fair subject for such experiments. I was able to take in one instance (January 9, 1894), three hours after a light supper, in the presence of several well-known physicians of this city, 3 grains of sulphate of morphine, followed in about thirty seconds by 4 grains of potassium permanganate—for safety's sake 1 grain more than necessary—both in aqueous solution. I was perfectly confident that the antidote possessed such a wonderful affinity for the morphine that it would instantaneously select it from among the contents of the stomach, and thus render harmless what might have easily been a fatal quantity to one so susceptible as I am to even very small doses of this alkaloid. Had only one-eighth of a grain of morphine been absorbed into the circulation, I should have undoubtedly felt it. Only a few weeks ago (January 20) I took, about two hours after breakfast, 5 grains of sulphate of morphine in 1 ounce of water, followed in a few seconds by 8 grains of the antidote dissolved in 8 ounces of water, without experiencing any effect whatsoever from the narcotic.'

'A weak solution of the antidote, say 1 grain to a tumblerful of water, should be administered by the mouth from time to time, even after all the opium or morphine in the stomach is supposed to have been rendered inert, because some of the morphia already absorbed into the blood may be afterwards excreted into the stomach.'

A method of using hyposulphite of soda in the treatment of tinea versicolor.—It is generally recommended to use this remedy in solution, $\frac{3}{4}$ to $\frac{5}{4}$ of water.

The use also of black soap, or Unna's marble soap, with considerable friction, or the combination of mercurial baths, may be advised. It is obvious that the majority of patients prefer employing local applications alone, and are anxious to avoid fumigations if possible.

The solution of mercury may be made as follows:

R. Hydargyri Perchloridi	9j
Saponis Virilis	$\frac{5}{4}$ ij
Spiritus Rect.	5ij
Ol. Lavand.	9j

The above-named local remedies will not always effect a cure. We have known several instances in which the

mercury solution was tried, and then the hyposulphite of soda, with hardly any good results.

A saturated solution of hyposulphite in glycerine was then tried, with immediately good effect, a cure ensuing in a very short time. Subsequently we advised the use of solid lumps of hyposulphite of soda dipped in glycerine, and rubbed into the part morning and night after a thorough washing of the part with soap and loofah. This remedy is generally effectual, but it must be kept up for a time, several weeks, after all signs of the disease have disappeared.

Veterinary Notes

The tuberculin test in cattle.—Mr. Robert Barron, M.R.C.V.S., contributes a paper upon this subject to the 'Veterinarian' for August.

He was consulted by the owners of a large dairy stock in Cheshire, who had suffered serious losses from tuberculosis for some years.

In April last Mr. Barron inoculated ninety-four cows and one bull on this farm with tuberculin. Antiseptic precautions were observed, and 40 minims of tuberculin were injected each time. The temperatures had been previously taken, and were again observed after inoculation at the 9th, 13th, 18th, and 37th hours. With a few exceptions, a rise of two degrees or more over the average temperature was accepted as evidence of the existence of tuberculosis.

Seventy-one animals showed a decided elevation of temperature out of ninety-five, and these seventy-one were condemned as tuberculous on April 3.

The next day most of the animals' temperatures were approaching normal again.

Very few of the cows gave physical evidence of tuberculosis, most of them being in good condition and looking perfectly well.

Mr. Barron describes this as 'an apparently average dairy stock,' and the result obtained requires serious consideration.

The writer further remarks upon the custom of dairy companies obliging the farmers to give a written undertaking not to send milk from any cow suffering from tuberculosis, &c. He remarks that the practice of having inspections made by a medical man often resolves itself into a farce. As an instance, he states that this very herd of cattle upon which he experimented had been previously inspected in this way, the medical man being satisfied that as far as could be seen the animals were quite well. He urges that nothing short of the use of tuberculin is of any avail.

We conclude with the words of Mr. Barron, omitting the tables, which showed exactly the rise of temperature in each case.

The cowhouses in which these animals were kept are extremely badly ventilated and deficient in air space, but have always been considered very good "buildings." It was remarkable, during the test, that heifers that had not been housed, or housed only for a very short time, were wonderfully free from tuberculosis, *i.e.* few of them reacted subsequently to the test here given. I tested twenty-seven newly purchased heifers, and only three of them reacted. These heifers were about two years old. Only one cow (No. 95) was slaughtered immediately after the test, and the butcher reported that she was "grassed;" but I had no opportunity of making a *post-mortem* examination. It may be asked, What has become of these seventy-one tuberculous cows? After the results were known, the owners isolated the *healthy* animals in a building previously disinfected, and placed all the diseased ones together. Since then I believe most of the "suspects" have been disposed of in the public markets; fresh cattle have been bought and tested, the healthy ones kept and the diseased sold. This method of eradicating tuberculosis affords food for reflection; it is perfectly legal, and with the morality of it the veterinary surgeon has nothing whatever to do.

The loss of money involved in changing a well-selected milking stock for young raw animals is very considerable. Very full compensation indeed would have to be paid by any Government for each diseased animal if the "stamping-out" process were attempted. Legislation is earnestly required to make the diagnosis of tuberculosis compulsory at the expense of the Government; to enforce the isolation of diseased animals and disinfection of buildings; to secure sterilisation of the milk of tuberculous cows, and adequate veterinary inspection of their flesh for human food.'

TUBERCULOSIS IN DENMARK

At the instigation of Professor Bang, of Copenhagen, a law has recently been passed devoting 70,000 francs per annum to the purpose of checking the spread of tuberculosis. Tuberculin is furnished free of charge, and the practitioner is paid by the State for making the injections and subsequent observations. The law has been in force for two years. In 1893-4 8,401 animals were tested; 5,030 failed to react, while 3,371 showed fever. In 1895 19,412 were tested; of these 7,378 showed a decided reaction, while 12,034 appeared healthy. Of the various districts of Denmark, Jutland has the highest proportion of tuberculous animals, viz. 47 per cent. of the total number. This is probably due to the

active sale and exchange which is continually taking place. The islands, on the other hand, being restocked almost exclusively by animals bred on the spot, show a much lower proportion. These experiments brought prominently into view the question whether the indications of tuberculin are universally reliable, and Professor Bang seems to some extent to doubt it. In one of the earlier series 280 animals reacted and were slaughtered, but of these quite 7 per cent. failed to exhibit signs of tuberculosis *post mortem*. Further experiments show an error as great as 9·2 per cent., but Professor Bang thinks this might be reduced to 5 per cent., or even to 3 per cent., by excluding cases where the fever is slight and of short duration. He again draws attention to the fact that the reaction in no way corresponds to the extent or severity of the lesions, and that animals possessing only a few small tubercles or caseated nodules may show as severe fever as those with extensive and old-standing disease. Where the lesions are slight, however, he thinks recovery often takes place, so that in the course of a year there may only be left small caseated or calcified nodules, incapable of reproducing the disease on inoculation. The author does not consider that injections of tuberculin are likely to bring about acute tuberculosis or to aggravate the existing condition. He advises rigorous isolation of suspects, but deprecates slaughter. A very interesting portion of his paper refers to the qualities of milk from tuberculous cows, and he finds from a series of sixty-three experiments with the milk of very tuberculous cows (which, however, had no mammary tuberculosis) that quite 14 per cent. of the samples were capable of transmitting the disease. Calves of tuberculous cows, if rigorously isolated and fed on boiled milk, do not become tuberculous. These experiments, therefore, seem to give a final blow to the hereditary theory of tuberculosis.—*Veterinarian*, August 1895.

CHLOROFORMING HORSES

Referring to our article in the August number upon 'Firing Horses,' we have received a letter from Mr. E. Wallis Hoare, F.R.C.V.S., of the Veterinary Infirmary, Cork, regarding the administration of chloroform to horses. He maintains that they take it very well, and in his experience do not suffer from the effects. We propose to obtain further information upon the subject, and deal with it more completely in a future issue.

Health and Holiday Resorts

THE approach of winter will call forth inquiries regarding the more suitable resorts for invalids and delicate patients, for whom some shelter from strong winds and severe cold can be obtained.

Doubtless the South of France offers advantages which cannot be obtained elsewhere, but for many of our patients a journey to the Mediterranean is impossible, and for others difficult of arrangement, and so it becomes necessary to select a residence in our own country.

For this purpose we make free use of the Report of the Committee of the Royal Medical and Chirurgical Society of London upon the 'Climates and Baths of Great Britain,' the first volume of which has just been issued.

In the introductory remarks by Dr. Ord, reference is made to the peculiarities of the south coast of England; first of all as to the geological formations, and then as regards the special arrangement of the coast line. The latter varies so much by its irregularities that great differences of climate are found within a small area; one side of a bay may be exposed to the east winds, with an air which is found to be tonic and bracing, while on the other side, with a westerly or south-westerly aspect, the sun pours in, on a beach lying at the foot of high cliffs, with almost tropical warmth; and one side of a headland may be so warm as to be held to be relaxing, while the other is cool and invigorating.

This sort of contrast is to be seen in the Isle of Thanet, and even more markedly in Cornwall, the southern coast of which county includes, probably, the warmest places to be found in our islands, the bold northern seaboard having a very robust climate.

The Gulf Stream is influential upon the western extremity of Cornwall in producing moderate temperatures; consequently the northern coast of Cornwall is warmer and softer than its physical constitution would lead us to expect, and the southern part of the county is still more genial. The Gulf Stream also accounts for the mellowing of the atmosphere all along the south coast, and for the fertility which is exemplified in the green fields and fine trees in places where the winds are not too powerful. This is especially illustrated in the islands round the coast, such as the Scilly Isles and the Channel Islands, as also in the Isle of Wight.

The great benefits to be obtained from the fresh

air and sea bathing cannot be too highly appreciated, but, as in the case of all other remedial agents, their use has its bounds and its qualifications. People accustomed to inland atmospheres cannot with impunity expose themselves much to the keen air of the seaside; they require warmer clothing, and are not able to sit for long in exposed positions without shelter.

Bathing. This is a very important subject, and many erroneous views are held regarding it. It is popularly thought that whereas a wetting with fresh water tends to produce ill effects, sea water is always innocuous and stimulating. This doubtless is a serious error. Whatever may be the case on ship-board, there is certainly danger when bathing at the seashore, and the visitor must act with great caution. The temperature is probably about 50° F.—that is to say, about 48° less than the temperature of our bodies. Even for robust persons and good swimmers, prolonged immersion is productive of exhaustion. For those commencing to bathe, the time of immersion should certainly be of short duration, and accompanied with movement, either of swimming or of some other kind.

It is of the utmost importance that bathers should feel a sense of reaction soon after leaving the water, and if they suffer from feelings of nausea, of chilliness, of headache, or of palpitation, they will know that immersion has been too long.

We would strongly advise the introduction of the foreign practice of supplying bathers with hot foot-baths after bathing. The use of them is a most delightful sensation, and materially helps to produce reaction.

In such a general summary as this it is, of course, impossible to give the peculiarities of the various districts. But we may mention that at the Scilly Isles we find a climate entirely derived from the sea, in the midst of the Gulf Stream, where no differences of soil or of inland conformation offer any complication. We find there a singularly equable climate, warmer on the whole than that which obtains from the mainland, yet troubled by storms of tremendous power.

Cornwall, again, possesses a high and more equable temperature than the rest of the south coast, and the sea is considerably warmer than the air, particularly between Padstow and St. Ives.

The greater elevations of Dartmoor and Exmoor have a sheltering influence upon both coasts. Here, as in Cornwall, vegetation, even subtropical, is

luxuriant, and the richness of these counties in the product of their grazing areas is proverbial.

We find relatively bracing air at Ilfracombe, and further along the line of coast beautifully sheltered spots, such as Lynton on the North and other places.

On the coast of Dorset and Hampshire are many places of great resort and celebrity, reaching from Lyme Regis to Hayling Island.

The characteristics of Bournemouth are well known, while Swanage, at the mouth of a curved valley running from sea to sea between chalk downs, has a strongly contrasting bracing quality.

As we approach the eastern part of the county we get a colder climate; the long Sussex coast embraces gradations more marked, though often varying in a way that, at first sight, might be unexpected. There are the low-lying regions, such as Bognor and Littlehampton, and the cliff projection as at Brighton, Hastings, and Eastbourne.

The Atlantic makes its mark on Cornwall and Devon, and also upon the Isle of Thanet, and especially at Margate, where we have a northern aspect clear to the pole without intervening land.

Reviews

Medical Electricity: A Practical Handbook for Students and Practitioners. By H. LEWIS JONES, M.A., M.D., Fellow of the Royal College of Physicians, Medical Officer in Charge of the Electrical Department in St. Bartholomew's Hospital. Crown 8vo., pp. 474. Price 10s. 6d. (London: H. K. Lewis.)

During recent years electricity as an item of medical treatment has made great advances, but not so much in this country as it has abroad, and especially in France. The works of Duchenne, Erb, Onnimus, Legros, Remak are well-known examples of foreign publications, and it astonishes medical practitioners from the Continent to find so little attention paid to the subject in England.

Certainly electrical treatment has been employed here to a considerable extent by the few, but it is doubtful whether it has been used by the many with sufficiently scientific accuracy.

Dr. Lewis Jones's book seems to supply just what is wanted by the general practitioner and student to enable them to grasp the essentials of treatment by electricity. It deals in a plain and practical manner with the apparatus to be used, the principles upon which they should be used, and the conditions under which they are applicable.

As an example of the work we would take a subject upon which much difference of opinion exists in this

country: we refer to electric baths. In the outset Dr. Lewis Jones states that he considers it unfortunate that the electric bath has been taken up of late by some unscrupulous persons, and so has been to some extent discredited by medical men. The electric bath, he considers, is useful in the treatment of morbid conditions which affect the whole system, because it provides a convenient and agreeable way of applying general electrification, a mode of treatment of great value whenever general stimulating and tonic effects are required.

This general electrification has a very powerful trophic influence upon the body, and is useful not only in debility and anaemia, but also in rickets, rheumatism, rheumatoid arthritis, gout, sciatica, and lumbago; also in general neuritis after diphtheria, influenza, and other specific fevers.

Then follows a description of the sort of bath to be used, the apparatus which is required, the resistance of the bath, and the mode of administration.

It is useful to note that the currents from the electric light mains may be used with the bath; when the supply is alternating the pressure should be reduced by a transformer to six or eight volts, which is a suitable electro-motive force to employ. A small adjustable resistance of 100 ohms in circuit is also necessary to adapt the current more closely to the requirements of the case. The alternating current of the mains produces a smoother sensation than the induction coil. In applying the continuous electric light current to the bath, care must be taken that the adjustable resistances employed can carry 200 milliamperes without overheating.

The work is illustrated with 101 figures, showing various apparatus and a few clinical cases. There are also eleven plates, showing the motor points of the body and the distribution of the cutaneous nerves.

We consider this work typical of what a handbook should be, giving just the necessary information without discursive material.

The Mineral Waters of Vittel. By Dr. L. GALLAND-GLEIZE, Consulting Physician at Vittel and Mentone. (O. Godard: Saint-Dizier.)

This monograph is a very complete and concise study of the waters of Vittel, both as regards their physiological and therapeutical action, their composition and mode of administration. Concerning this last point, Dr. Galland-Gleize very rightly remarks that patients, against the advice of their doctor, take the waters in larger quantities than is necessary, and adds that 'all mineral watering-places have their hydromaniacs.' We cordially agree with him, and the warning is not without importance. It is a pity that the author in writing a study destined to be put in the hands of English readers did not seek the aid of some one thoroughly conversant with the English language, for in its present state this elegant little book can hardly be called readable.

CLINICAL SKETCHES

OCTOBER 1895

Medical Education and the London University



HE medical winter session of 1895 has now had a fortnight's start, and the general views which parents and guardians have formulated as regards the medical career of students commencing their hospital career will

have been more or less developed weeks or perhaps months ago.

Notwithstanding this preliminary determination as to the objects to be held in view, it is a matter of fact that a large number of students enter every year at the various medical schools throughout the country—and especially at those in the Metropolis—with the view simply of getting legally qualified, so as to be able to practise medicine, surgery, and midwifery in whatever capacity may ultimately present itself.

Indecision as to the exact line of practice to be followed ultimately is not only generally inevitable, but doubtless desirable; but it would be well for those who aspire to take a degree in medicine to make up their minds as early as possible as to which university they will select.

We would strongly advise every student to commence with the determination to become an M.D. As regards those who have begun their medical career in the Metropolis, we would urge them to select some other than the London degree—that is, until we possess a practical teaching metropolitan university.

The University of London examinations involve so great an expenditure of energy and so great a capacity for a peculiar kind of knowledge that it is

only a very limited number of students who are able to obtain what they aim at without so overstraining their brains that they may be fit for little practical work ever after.

Although there are many possessors of the M.D. of London who are notable exceptions to such a result as we refer to, yet with a great many it is otherwise. We are not dealing with exceptions, but with the rank and file of the profession, and the lamentable failures which occur as a set-off to these notable men are too numerous to escape observation.

We cannot but regard the University of London, as at present existing, as 'a stumbling-block to the medical profession,' and an obstruction which ought to be levelled into usefulness. The severity of the matriculation examinations, however, might be retained without harm; in fact, the suggestion of Dr. Mitchell Banks, which we discussed in our September number, that the portal examinations should in other cases be made more searching, is quite in accordance with the views of the writer, and would doubtless do much to ensure a better class of students and exclude those who subsequently prove themselves unable to do credit to the profession they have adopted. It is the scientific portion of the examinations of the University of London which are so excessive in their severity, entailing the necessity of cramming into the brain knowledge that can never be retained there.

There is one effect, however, which frequently becomes permanent—that is, a deterioration of brain power. Without any doubt, the passing of these examinations does very great credit to those who succeed, and there are men who seem to carry all before them without the extraordinary effort which others have to make, and even without the effort which many

make although they fail. But such results are great exceptions. These successful students are men peculiarly constituted; but for the ordinary individual whose brain power is not in excess of his physical development, the attainment of success is scarcely worth the sacrifice.

The theory of 'the survival of the fittest' applies to this case, inasmuch as the very few men who not only obtain the distinction, but continue to do well in the world as practical workers, are individuals of immense mental power; but such individuals would succeed under any circumstances, and certainly without going through a test which involves such a large number of sacrifices.

It is now open to the authorities of the London University to amend their position, and we hope before long to be able to congratulate them upon the organisation of a scheme which will meet the requirements of the day, so that a university degree will be within the reach of every thorough worker in London who has sufficient ability to master the practical details of his profession. In the meantime, the student must look elsewhere for such a degree.

There are Oxford and Cambridge and other provincial universities, as well as Edinburgh and Dublin; but with regard to the full particulars of these universities the student should consult the educational numbers of the weekly medical journals or the prospectuses of the individual institutions.

The right to be called 'Dr.' is one which is coveted by probably thousands of qualified men who do not possess the M.D. degree, and we would strongly urge parents and guardians to impress upon the students under their control who are now commencing their profession the importance of aiming at obtaining this distinction, whatever their ideas as to a subsequent line of practice may be; and we would assure students themselves that it is almost, if not absolutely, certain that, whatever they may think now, they will in after years agree with this opinion.

NOTES BY THE EDITOR

In my early student days the use of such aids to memory as are commonly called 'tips' did not meet with much favour from our teachers; nevertheless they assisted in impressing certain facts upon the memory, facts which otherwise might have been forgotten. As an instance I may mention that the distribution of

functions of the columns of the spinal cord was indelibly fixed in our minds by the well-known symbol M.A.P.S., and I believe this required far less effort to acquire than would have been the case by any other method.

I believe this prejudice against the use of 'tips' is dying out, and teachers are recognising the necessity of some such artificial system in order to fix firmly in the memory of the learner the enormous amount of information which has to be acquired in the present day.

The diagrammatic 'tip' is also immensely useful, and that which is published in this issue by Dr. Lauder Brunton appears to me to be typical of the kind of aid I mean. I should be glad to encourage students and others to devise such methods of learning, and shall be happy to publish any useful new suggestions of this kind.

Sketching what is seen, and devising aids to memory, must help very much to develop the faculty of observation, and this is the faculty which we all acknowledge to be most useful in the study of medicine.

Another method of assisting the memory which is rapidly gaining the attention of students is the art of shorthand writing. It is a remarkable fact that the Society of Phonographers, started by Dr. Gowers in December 1894, with 60 members, has so rapidly gained ground that in less than a year it has increased its numbers to 175.

In delivering the Presidential Address before this Society, Dr. Gowers urged in convincing terms the advantages to be gained, not only by the student, but by every medical man, from learning this method of writing. An interesting experiment, he said, had just been carried out at the Westminster School of Shorthand, 'which shows that if a man chooses to give to the study two hours a day, with a lesson each day, in a fortnight he will be able to write it at the same speed as longhand, and at the end of a month will have secured its practical use.'

I have no knowledge of the experiment, but I cannot help thinking that Mr. Hayns was fortunate in securing pupils of remarkable ability, for the shortness of the period referred to is quite contrary to the experience of the majority of practical writers. An excellent shorthand writer has informed me that

it was only after months of weary practice that he acquired tolerable efficiency, and he further assured me that to attain and retain a useful speed, say 120 words a minute, involves an amount of drudgery which, happily for him, the hopeful learner little anticipates.

Many of us will remember Charles Dickens's description of the labour he went through to acquire ability in this art. However, the time taken is merely a matter of detail, for the result is certainly worth the effort.

In reading the introductory addresses of the opening of the Medical Schools, one is struck by the apparent effort to introduce some new theme into the lectures. Most of them contain some interesting statements, but not many take the line of the opening address of years gone by, of simply describing to the student the work he has to do and the best way in which to do it.

One of the more interesting is that by Professor Leech, of Manchester, given at the opening of the Yorkshire College, Leeds. The writings of Hippocrates is an old theme, but Dr. Leech quotes the 'father of medicine' with a freshness and ability which make one think that the study of this ancient writer's works might well occupy a part of every student's leisure.

'Exactness in observation' would have served Dr. Leech as a motto when urging students to carefulness in study, and when descanting on the necessity of not neglecting scientific collateral subjects.

In the next number of this Journal I hope to give a fuller account of this lecture, with a portrait of Hippocrates.

No grander example of what may be done by exactness of observation could be given than the work of that great surgeon who has emerged once more from his well-earned retirement to do honour to an old pupil. I refer to Sir James Paget.

In presenting to Dr. Hughlings Jackson the testimonial of that physician's eminence subscribed to by his friends and colleagues, Sir James expressed himself in his usual graceful manner, and, in referring to the advances in science which Dr. Jackson had made, expressed the opinion that all students and all practitioners of medicine should carry through life the determination to look upon the clinical room as a place for scientific study as surely as the laboratory.

Original Papers

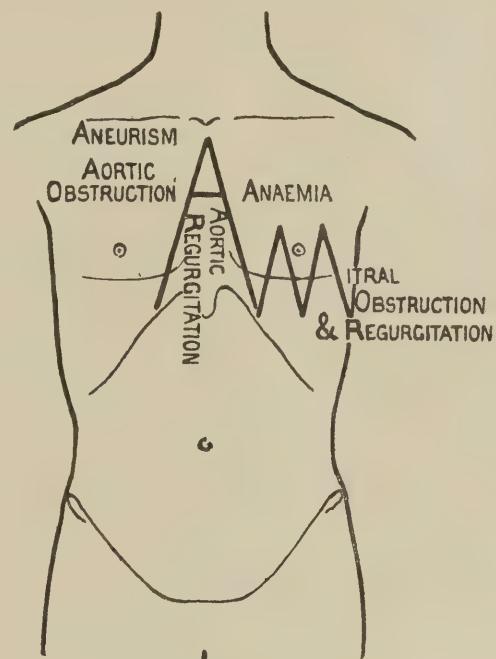
SOME SIMPLE NOTES ON DIAGNOSIS

By T. LAUDER BRUNTON, M.D., F.R.S.

The following notes on diagnosis are so simple, I might almost say so childish, that I hesitate to put them in print; but I know that to many beginners the sounds which they hear on auscultation of the heart and lungs are most puzzling, and much time is often spent in acquiring a very rudimentary idea of their significance.

I think, therefore, that the accompanying diagram may possibly be of some use to a student commencing the practice of auscultation.

The sounds of the heart are usually imitated by repeating the syllables 'lubb dup.' In repeating these syllables the breath issuing from the larynx is caught,



and the sound cut short by the closure of the lips. Should the lips not be closed, so that the air continues to pass out through them, the sounds will be 'luff duff' instead of 'lubb dupp.'

A similar occurrence takes place in the heart, and if the valves do not close properly the sounds do not terminate sharply, and here again we get 'luff duff' instead of the normal sounds.

If we try to say 'lubb dup' with the mouth widely open, we simply get 'hoo hoo,' and these

sounds also we find when the valves are very incompetent.

If we were to try and say 'lubb dup' with a strong wind blowing across our faces, the sounds would be carried along by the wind in the direction in which it was proceeding, so that a bystander at leeward would hear them very much better than one to windward.

In the same way sounds are carried by the blood in the direction in which it is going, so that an aortic obstructive murmur is carried upwards towards the shoulders along the aorta and subclavians, while an aortic regurgitant murmur is carried down along the sternum instead.

The transmission of mitral murmurs is more complicated, and need not be entered upon at present.

The position of the various murmurs is indicated by the diagram, in which 'A' nearly covers the area of aortic murmurs and 'M' that of mitral murmurs.

ANKYLOSIS OF VERTEBRAE

NOTE BY SIR GEORGE M. HUMPHRY

If the writer of the article in the August number of CLINICAL SKETCHES had extended his researches to the Pathological Museum at Cambridge, he would have found additional evidence that the bodies of the vertebrae rarely become united by bone in lateral curvature of the spine, though their edges, projected and meeting over the compressed intervertebral substances on the concave sides of the curves, do sometimes thus become united, apparently, by ossification of their covering periosteum. He would further have found that it is no unfrequent thing for the arches, including the articulating and transverse processes, to be thus ankylosed, which results probably from the irritation of the periosteal and other tissues when compressed between the approximated bones. It is further remarkable that the arches, when distanced from one another, as in angular curvature and fracture, often become ankylosed by bone filling up the intervals between them; and the strength of the deformed part of the column often depends much upon this. The bone formation here, I suppose, is the result of irritation caused by the stretching to which the periosteum and ligaments are subjected in consequence of the separation of the arches. An illustration of the effects of a similar cause is afforded by the bony outgrowths we sometimes find at the points of insertion of tendons.

These are well seen in a specimen in the museum, sprouting from the upper extremity of the tuber tibiae, from the head of the fibula in the lines of the peroneus longus, and from the tibia in the line of insertion of the popliteus. What causes this to occur in several parts of the same person I cannot tell. As we know, it may proceed to the conversion of large tracts of muscle, or intermuscular tissue, into sheets of bone. Neither do I know to what cause are to be referred the thick bony plates which are not uncommonly found upon the front or sides of the bodies of the vertebræ, extending upon and ankylosing, it may be, considerable tracts of the otherwise healthy column. These are formed in the periosteum and other covering tissues of the bodies of the vertebræ, and coalesce over the intervertebral substances. I may further observe that ankylosis of joints, except from ulceration, is commonly due, not to ossification of the articular surfaces themselves, but to that of the investing ligamentous structures, as may be seen when a section is made through joints thus affected.

[We hope to pursue this very interesting subject at a future date.—ED.]

HYDROPERITONEUM CAUSED BY AN OVARIAN DERMOID

BY J. BLAND SUTTON

It is now clearly recognised that when the peritoneum is irritated by certain forms of tumours, such as papillomatous cysts of the ovaries, nodules of carcinoma, subacute infective diseases of the Fallopian tubes, ovarian sarcoma, and the like, free fluid accumulates, sometimes with astonishing rapidity, in the peritoneal cavity. Such an accumulation of fluid is conveniently termed 'hydroperitoneum' in order to distinguish it from the passive effusion characteristic of the later stages of cardiac, renal, or hepatic affections, known as ascites.

Surgeons have so long known that hydroperitoneum is a very common, but not a constant, complication of malignant tumours, primary and secondary, of the abdominal viscera, that they very naturally look with suspicion upon any tumour thus accompanied.

In this short article I propose relating the chief features of a case in which an ovarian dermoid gave rise to a very extensive hydroperitoneum.

Dr. Hollings placed under my care a lady 63 years old. She had a rapidly increasing swelling of the belly which furnished the usual physical signs of

ovarian tumour; but it was also clear that the peritoneal cavity (cœlom) contained free fluid.

Celiotomy was performed, and, on incising the peritoneum, twelve litres of greenish, opalescent fluid escaped. A dermoid the size of a shaddock was detected, buoyed up by the fluid. Its very short pedicle was with some difficulty carefully secured. The residue of the exudation was carefully removed, and the incision secured by triple layers of sutures: catgut for the peritoneum, silkworm gut for the aponeurosis, and waxed silk for the skin. The patient made a satisfactory convalescence, and is at the present time in excellent health.

The tumour proved to be worth the investigation it subsequently received. It was a typical dermoid

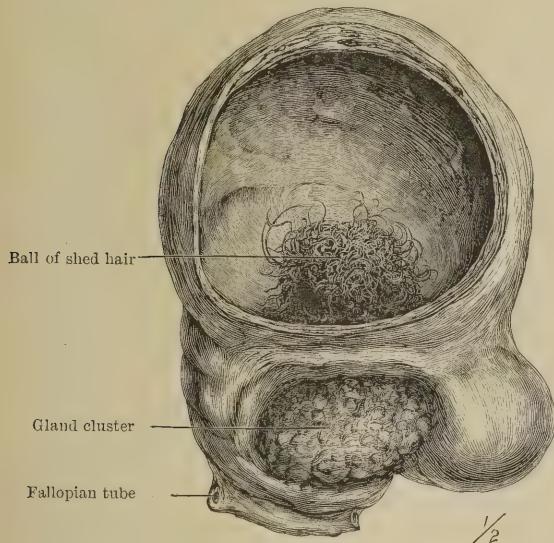


FIG. 1.—AN OVARIAN DERMOID FROM A PATIENT AGED 63
The walls of the loculus are bald.

(fig. 1); its biggest loculus contained the usual pulpa-
ceous matter and a ball of brown hair. The walls of
the loculus were quite bald, and I have on several
occasions pointed out this peculiarity, that skin lining
the cavities of dermoids, like the normal integument,
sheds its hair as age advances. Also, in old age the
hair of dermoids becomes grey. In the present
instance the patient was advanced in years, and the
small amount of hair which occupied her scalp was
grey.

utting from the wall of the dermoid, near its stalk, is seen a mass of glands and small cysts. These glands are lined with tall epithelium, and a careful consideration of the glands induced me to believe that the cysts represented distended gland follicles, which,

when they burst, discharged their secretion into the peritoneal cavity, and the irritation set up by this secretion induced the hydroperitoneum.

The capability of the fluid secreted by adenomata to produce hydroperitoneum has been demonstrated in the case of adenoma of the Fallopian tube. However, the practical point is this:—whenever hydroperitoneum complicates an innocent abdominal tumour, removal of the tumour permanently stops the abnormal exudation.

NOTES AND SKETCHES MADE DURING A TOUR THROUGH GREAT BRITAIN

By ALFRED HAVILAND

Author of the 'Geographical Distribution of Disease in Great Britain,' late Lecturer on the Geography of Disease at St. Thomas's Hospital, London, S.E.

During the investigation of the geographical distribution of disease in Great Britain, which has now been continued ever since 1868, there has necessarily accumulated a large amount of detail in the shape of notes on, and sketches of, the many localities visited, which, however interesting in themselves, were found to be inadmissible in a work devoted simply to the general treatment of the medical geography of this country; their introduction would have increased inordinately the bulk of the volume which was only intended to contain the history of the investigation, and a discussion of the method pursued by the author in carrying it out; being illustrated by the details involved in the study of disease distribution throughout the typical and interesting area known as the English Lake District.

Although England and Wales are divided into 633 registration districts, it may be safely asserted that no two districts exactly resemble each other, either in their physical configuration or geological structure, and therefore in their local climate, whilst in the density, ethnology, and occupation of their populations, we frequently find many districts bearing strong resemblances to each other, so that taking these two statements together we are forced to the conclusion that there are many populations, almost identical in the above respects, living under great diversities of aspect, soil, and local climate, forcibly reminding us of the remark of Hippocrates¹ (elsewhere quoted by the writer) to the effect that two places

¹ *Oeuvres d'Hippocrate, par M. Littré. 'Airs, Waters, and Places,' vol. ii. p. 22.*

may differ widely in their local climates and their factors, although only a stadium apart ($\eta\nu \kai \sigma\tau\acute{a}diov \tau\delta \mu\varepsilonta\xi\nu \hat{\eta}$).

Now the average area of a registration district is a little over 92 square miles, the 58,829 square miles of the English and Welsh areas being divided into 633 districts of every conceivable size and form except the natural and rational; the smallest being frequently the most densely populated, and often embracing the least number of geological formations. The late Sir Andrew C. Ramsey¹ remarked that 'England is the very paradise of geologists, for it may be said to be in itself an epitome of the geology of almost the whole of Europe and much of Asia and America,' and according to the same author there are about fifty different formations composing the land of Great Britain, amongst which the greatest diversity is to be found as to geographical distribution, superficial area, and petrological character. In some districts we find the oldest crystalline rocks prevailing, in others sedimentary strata solidified by heat, pressure, and intrusion of volcanic lavas; whilst clays, limestones, sandstones, drift, and alluvial deposits lie upon each other or side by side in many others, especially to the south-east of the older rock-masses that predominate in the northern, north-western, and Welsh counties.

Again, apart from geological structure we find important differences in physical configuration. For instance, one set of districts may lie along river-valleys, that give free access to the prevailing sea winds, and thus admit of their being thoroughly air-flushed; whilst others are so situated along the main water-courses as to be shut out from these beneficial influences; so that in one case the lower depths of the valleys are purged of the emanations of the soil, whilst in the other malarial and other pathogenetic exhalations accumulate within the valley boundaries, over which, instead of *up through* which, the air-currents from the sea sweep.

It is therefore manifest that whilst Great Britain is a paradise for the geologist, it is indeed a happy hunting-ground for the medical geographer, wherein he can revel in the pursuit of his diversified studies of disease distribution and its relation to soil, physical configuration, geological formation, vegetation, and local climates.

Such a field of inquiry as I have just briefly sketched England and Wales to be, when united to

Scotland with its grander physical features, but less diversified geological structure, affords a fertile area for labour to the medical geographer, who with pen and pencil travels over its surface year after year, collecting the facts in physical geography, geology, and climatology that meet him, wherever his work calls him, with the view of noting and sketching them, and then placing them with the disease facts of the Registrar-Generals, for the purpose of studying together the two classes of incidents, and of discovering whatever relation there may obtain between them—whether, in fact, excess or defect in mortality from certain fatal causes is associated with certain well-defined natural features of the country, as cause and effect, or is only coincident with them.

To make use of some of such notes and sketches as have been accumulating through many years of labour during my tours through Great Britain, it is proposed, before it is too late to do so, to publish some of the more typical and important in a series of papers to be contributed to this journal.

I cannot do better, in beginning this series, than illustrate the remark, just quoted as the result of the great physician's experience, by some notes and a sketch I made of the country where I was forcibly reminded of the proposition: 'that two districts may differ in climate, although only a stadium apart.'

I.—PHTHISIS IN THE ISLE OF MAN: KIRK BRIDE

During the summer of 1882, I had for the second time been investigating the causes of the infrequency of *phthisis* in the town of Scarborough and neighbouring coastal districts of the North Riding, when, through the courtesy of the High Bailiff of Douglas and Registrar-General of the Isle of Man (Samuel Harris, Esq., Vicar-General), I first became aware of the high death-rates from the above cause in some of the north-eastern and south-western parishes of that island. And as the Isle of Man was a blank in the large map of the geographical distribution of phthisis among females, which I published in 1875, I determined to visit it and collect the necessary material for showing the distribution of *phthisis*, *heart-disease*, and *cancer* in this beautiful and unique island. Soon after my arrival, Mr. Harris placed at my disposal all the death registers of the Isle of Man in his possession, abstracts of which were first printed and published May 1, 1881, and have been continued annually to the present date.

¹ *Physical Geology and Geography of Great Britain.* 5th ed. Stanford, London, 1878, p. 302.

At the time when I first began my inquiry, the registers for 1880 and 1881 were alone complete ; those for 1882 were, however, examined by me in a similar manner early in 1883. The method I adopted was to copy : (1) the number of each entry ; (2) the date of death ; (3) the place where the death occurred ; (4) the sex ; (5) age ; (6) the cause of death ; and (7) whether certified or not. For the three years 1880–82, there were registered, in 1880, 1,180 deaths ; in 1881, 1,051 ; and in 1882, 1,017 ; total, 3,248. From these I extracted all the deaths caused by *phthisis*, *heart disease*, and *cancer* ; of which 510 were attributed to *phthisis* in a population (1881) amounting to 53,558, of whom 25,760 were males, and 27,798 females.

With the aid of the Registrar-General's printed reports, supplemented by my own extracts, I was able to construct a map, showing the geographical distribution of *phthisis* among males and females at all ages in the Isle of Man, which I coloured according to the scale adopted in my disease maps of England and Wales, thus : All the seventeen parishes and four towns that had a death-rate from this cause *above* the insular average were coloured in shades of *blue*, the highest being characterised by the *darkest shade* ; whilst all that had a mortality *below* the standard were coloured in shades of *red*, the *darkest red* indicating the *lowest death-rates*. Some of the parishes, however, having an abnormally high death-rate from *phthisis*, I was obliged to add to the usual three degrees of *above* the average, an additional colour—*grey*. For these three years, 1880–82, the range of mortality extended from an annual death-rate of 22·67 in Santon, to one of 65·83 in Bride to every 10,000 of the populations living. The extraordinary mortality in the latter parish determined me to extend my investigations, and for this purpose I visited Kirk Bride in 1883, and during the time that I was the guest of the rector, the Rev. E. Kissack, M.A. (now one of the canons of York and rector of Ballaugh), I made a house-to-house inspection, and was most kindly and efficiently aided by my host, to whom my best thanks are due.

I shall not enter into the detail of this inquiry, as in the December of 1883 I gave a lecture in Douglas which embodied all its results, and was published immediately afterwards.¹ Now for the facts.

(1) The coloured map that I had constructed clearly showed that, whilst Bride, the extreme north-

eastern parish of the island, had the highest mortality from *phthisis* in the whole of Manxland, the adjacent parish, Lezayre, lying immediately south of it, was coloured so as to indicate an annual death-rate from this cause *below* the average of the whole island. In fact *Bride* was sure to have had, during the three years, a mortality equal to 65·83, whilst the adjacent parish *Lezayre* had only 29·27 to every 10,000 living, or less than the insular *average* during the same period which amounted to 31·63. *Bride* was therefore coloured *grey*, the supplementary tint ; and *Lezayre* light *red*, indicating its position on the scale as *below* the insular average.

(2) Not only are the two parishes adjacent, but their populations are housed upon the same platform of drift deposits, having a depth, according to Mr. Percy F. Kendall, F.G.S., probably down to below the sea level,¹ and consisting of sands, loam, and *striated boulders*. On this low tract of land, which is triangular in form, five parishes and one town (Ramsey) lie ; and it is said to be the largest area of drift deposits in the British Isles ; in fact, the above parishes occupy more than fifty-four square miles (54·2) of this unique country, or a little less than a fourth (56·86) of the whole island, which contains 227 square miles 45 acres.

Bride in 1881 had a small population amounting only to 375 males and 366 females ; whilst *Lezayre* contained, exclusive of the part included in Ramsey, 733 males and 747 females.

On reaching *Bride* I found that what are called on Greenough's splendid physical and geological map of England and Wales and the Isle of Man, the *Balla Chirrym Hills*, are now better known as the *Bride Hills* ; these are composed of glacial drift containing striated boulders, and stretch across the north-eastern part of the flat triangular area just described, from *Shellag* (Point Cranstal), a cliff overlooking Ramsey Bay on the east coast, to *Blue Point*, a cliff on the north coast of Kirk Andreas, a distance of a little over four miles. The highest point of this ridge is at *Ballacash* 310 feet, at *Point Cranstal* 270 feet ; the mean altitude being about 260 feet. In their course from point to point they cross the southern portion of *Bride*, and thus completely separate its population from that of *Lezayre*, with the exception of a few inhabitants living on the southern side of the ridge.

On the north side of this ridge the people of *Bride* are exposed to the full force of the north-easterly winds

¹ 'On the Glacial Geology of the Isle of Man.' *Quart. Journal of the Isle of Man Natural History Society*, October 1894.

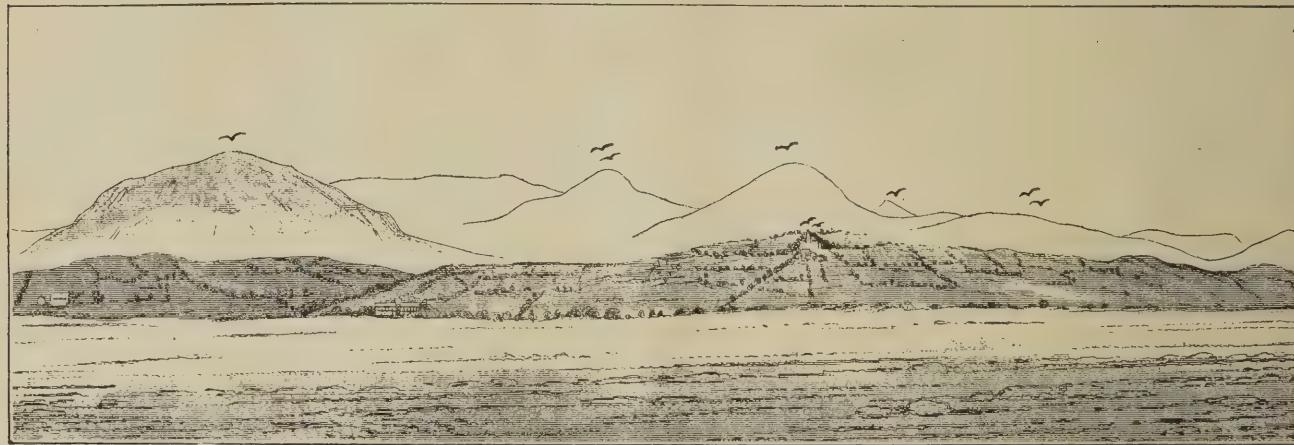
¹ Consumption : the Social and Geographical Causes conduced to its Prevalence in the Isle of Man. Douglas, Isle of Man : Brown & Son ; Price one shilling.

which sweep over its low foreshore and the flat country between the sea and the Bride Hills ; coincident with this climatic feature is a *high* death-rate from phthisis in harmony with the facts I have observed throughout Great Britain.

On the south side the inhabitants of Lezayre are protected from these borean winds, and moreover are sheltered from the south-west winds by the northern mountains ; coincident with this protection from the full force of winds, a *low* death-rate from consumption obtains, as I have shown to be the case throughout Great Britain. In my published maps of the Geographical Distribution of Phthisis¹ among females (1851–1860) abundant evidence of this important fact may be seen.

We must remember that in these two parishes the populations have many things in common ; in the first

inhabiting this wind-swept plain receive the full blast of the north-easterly winds. Bounding this plain we see the Bride Hills in front, having on their northern aspect Kirk Bride church and village. In the far background are the outlines of the Lower Silurian mountain masses of the north of the island ; in a line S.W. of the Point of Ayre Lighthouse is seen behind Bride Church, Snaefell, the highest mountain in the Isle of Man (2,034 feet) ; on the left (east) of Snaefell are Clach Ouyre (1,808 feet) and North Barrule (1,842 feet) ; on the right (west) Pen-y-Pot (1,772 feet) is seen, and Slieu Monagh (1,257 feet). Between these northern mountains and the south side of the Bride Hills the parish of Lezayre lies, on a platform similar to that on the north ; and here the consumptive find protection both from the north-easterly winds on the one hand and the south-westerly



Northern Mountains. } . . . North Barrule,
Heights in feet } 1,842

Clach Ouyre,
1,808

Snaefell, 2,034 Pen-y-pot, 1,772

Slieu Monagh,
1,257

Kirk Bride Church

THE BRIDE HILLS. VIEW FROM POINT OF AYRE LIGHTHOUSE

place they are linked by racial and family ties, as the names of those who died from phthisis during 1880–1882 testify ; for among them I found the descendants of the original Manx and Norse families, such as Teare, Kaighan, Caley, Christian, &c., registered in both parishes. Secondly, their occupations are similar, agriculture and fishing.

The sketch which illustrates these notes will give the reader some idea of the country under discussion. It was taken in 1883 from the top of the Point of Ayre Lighthouse (106 feet). The level ground at the foot of the lighthouse stretches for many square miles to the foot of the ridge, and the lung-tainted

on the other, with the result that among males and females taken together during 1880–1882 the death-rates were as above stated. My map of phthisis for England and Wales was constructed to show the distribution from this cause among females ; and here I am about to compare these Manx parishes with some districts in North Wales, in which the physical conditions and the results as regards phthisis are similar. I will give the death-rates for the last ten years (1881–1890) in which the year 1880 is necessarily omitted, not, however, without noting that during this year there was a greater number of deaths from phthisis among females than has been registered since. In small populations we frequently find this to be the

¹ Bailliere, Tindall, & Cox, 20 King William St., Strand, W.C.

case ; an unusual absolute number in one year and then hardly any deaths in the next, as if the supply of the lung-tainted had been exhausted for a time. Phthisis is less fatal in the Isle of Man among males than among females, and this has been the case in Bride.

For the ten years, 1881-90, the death-rate from phthisis in the Isle of Man was, among males 27.72, and females 28.55.

During the above decennial period, in the exposed wind-swept Bride the death-rate was 46.51, whilst in the more protected Lezayre it was 34.48.

II.—PHTHISIS IN NORTH WALES: PWLLHELI

In North Wales we have a still more striking instance of the protective power of hill-ridges, and its effect on the death-rate from phthisis.

Those who have studied my map of phthisis among females, above referred to, will have noticed the striking contrast presented by the registration district of Pwllheli to the adjacent districts of Carnarvon and Anglesey; Pwllheli being coloured *light red*, indicating a mortality below the average, whilst Carnarvon and Anglesey are distinguished by the darkest blue shade of the highest mortality. Pwllheli had a death-rate only amounting to 24.17, whilst Carnarvon and Anglesey were credited with 42.23 and 37.36 to every 10,000 living respectively. This happened during 1851-60; during the twenty years, 1851-70, the death-rates were as follows : Pwllheli, 25.32; Carnarvon, 41.88; and Anglesey, 42.77.

Anglesey is wind-swept from the north-east and south-west, and the trend of its river-valleys favours these prevailing currents. Carnarvon, too, is exposed to similar winds, and has the gully of the Menai Straits to contend with as well.

Now Pwllheli, although a promontory stretching out into St. George's Channel, between Carnarvon Bay and Cardigan Bay, looks as much exposed as Anglesey, and more exposed than Carnarvon, yet when we examine its configuration the clue to the remarkable lowness of its death-rate is revealed. Pwllheli during the twenty-years period, 1851-70, had a mean population of 11,313 females, unequally distributed along its two coast lines, which are separated by a high ridge of volcanic and Cambrian rocks.

This ridge, or water-parting, divides the promontory unequally, and stretches from the extreme southwest (Mynydd Anelwog, 835 feet) through Rhos Hirwawn, Carn Eadrynn (1,221 feet), Carn Boduan, the Rivals (887 feet), to Y Garnedd Goch (2,315 feet),

having a mean altitude within the district of about 1,263 feet.

On the north-west or *exposed* slope of this ridge there were eleven coastal parishes having a mean population of 2,633 females; and on the south-east or *protected* side there were twenty-two parishes having a mean population of 8,650 females; total mean female population, 1851-70, 11,313.

Now it is manifest that such an excess of population on the *protected* side would dominate the death-rates of the whole district from any cause. The borough of Pwllheli is situated on the protected side, and with its mean population, the highest in the district, of 1,323 females, reaps not only the advantage of the lofty ridge which protects it from the north-westerly gales, but is further protected from the south-westerly, as it is not only sheltered from them by the promontory of Careg-y-rimbill (gimlet rock), but by the more important one which terminates in Penkilan and Wyllfa Heads.

The remarkable ridge I have briefly described and Bardsey Island are well seen from Craig Abermaw, Barmouth, whence I sketched them in 1890.

Throughout Great Britain there are many instances illustrating the fact that two districts, not a stadium apart, may not only differ greatly from each other in climate, but in their death-rates from diseases influenced by climate.

CLINICAL GYNÆCOLOGY

NOTES AND ABSTRACTS

BY ARTHUR E. GILES, M.D., B.Sc., M.R.C.P.
Assistant Physician, Chelsea Hospital for Women.

REMARKS ON EXTRA-UTERINE GESTATION

The natural history of extra-uterine gestation, when not interfered with by operation, cannot often be observed. For this reason it may be instructive to group together three such cases, two in the human subject and one (a unique case) in a baboon.

Extra-uterine gestation: intestinal obstruction: death.—Mrs. F., aged 38, was admitted to the Chelsea Hospital for Women, under my care, September 10, 1895. Married thirteen years, she had never been pregnant. She had lately missed two menstrual periods; six weeks ago, while at the seaside, she was suddenly seized with violent abdominal pain, and became very ill. When I saw her, on September 10,

she had a temperature of 103° and a pulse of 120; the abdomen was extremely distended and resonant; she suffered from vomiting and from a thin, offensive diarrhoea. Per vaginam, the cervix was felt, pressed against the pubes, and soft; the whole uterus was fixed, and surrounding it was a firm, hard mass, completely filling the pelvis. Milk was present in the breasts. A bimanual examination was impossible, owing to the tense abdomen. Diagnosis rested between pelvic inflammation, a retroverted gravid uterus, plus pelvic inflammation, and extra-uterine gestation. It was thought that if the latter was the case, there must be some additional complication. An attempt was made, under ether, to push up the pelvic mass, in case of retroversion, with a view to overcoming the intestinal obstruction. This was ineffectual; but a long rectal tube passed at the same time gave passage to much flatus, and the symptoms were temporarily relieved. The sickness entirely stopped, but the distension remained considerable, and the temperature varied from 103° to 104° .

In consultation, the propriety of abdominal section was considered; but it was decided that the patient's present condition was so critical that she would probably not leave the operation table alive. The symptoms gradually became worse, and on September 24 she became suddenly much worse, and died. At the autopsy a two and a half months' gestation was found, occupying the outer half of the Fallopian tube, with secondary rupture into the peritoneal cavity. The gestation sac, with about twelve ounces of thick grumous blood, filled up the cavity of the pelvis.

I propose shortly to give a full account of this interesting and instructive case, with details of the pathological conditions found. Meanwhile, for the sake of completeness, I give this outline of it, in connection with the two cases which follow.

Rupture of a two-months' tubal gestation, with formation of hæmatocoele and bursting into the bladder.
Recovery. By F. SCHWARZ, Fünfkirchen (*Cent. für Gyn.* No. 37, 1895, pp. 985-7.)

A lady of 42 had twelve years ago a normal labour and lying-in, and had not since been pregnant. Two years after, she fell ill with parametritis from some unexplained cause, and a tumour the size of a child's head formed in the left parametrium; this disappeared after several years, under a treatment of baths and massage. A tubal abortion could not be excluded.

The patient, who since had enjoyed good health, now fell ill again, with manifest symptoms of preg-

nancy. One menstrual period had been missed. Vomiting and great malaise brought the patient low, so that, in desperation, just before the next period was due she used warm vaginal irrigation, and finally a very hot bath, from which she could get out only with difficulty and not without having scalded herself.

The next morning, on leaving the bed, she fell back powerless with great abdominal pain. The doctor called in had difficulty in counteracting the collapse and pain. At midday Schwarz found her deadly white, and tossing about on the bed.

Abdomen distended; vomiting, pain, and a feeling of anguish succeeded each other; body cold; pulse thready and uncountable: all the signs, in fact, of internal haemorrhage. The site of the haemorrhage could be located in the left parametrium, where there was an elastic tumour the size of a foetal head. Pregnancy was indicated by the enlarged uterus, the soft cervix, and the os admitting a finger; there was a discharge of blood and mucus. The abdomen had become tender all over; there was constant desire to micturate. In the urine there was nothing pathological. Later in the evening the tumour was unaltered: the cervix had dilated, and the finger ascertained that there was no foetus in the uterus, whilst certainly no foetus had been expelled.

The diagnosis of a ruptured tubal gestation of eight weeks was perfectly clear. But it was of further importance to decide the situation of the rupture, in view of the question of operative interference. As the tumour did not increase in size, while the patient revived, it was concluded that the rupture had not occurred into the peritoneal cavity, but into the broad ligament, and expectant treatment was resolved upon.

On the third day the collapse was definitely overcome, the uterus involuted, with but a small quantity of lochia. The tumour showed no enlargement, but was very tender, and a temperature of 100° - 102° , with rigors, indicated suppuration. The condition so remained for fourteen days, and the patient began to complain much of pain about the pubes. Then, after a great desire to micturate, there was discharged a great quantity of pus with blood-clots and shreds of tissue. Evidently the hæmatocoele had broken through into the bladder, for at once there was considerable reduction in the size of the tumour. For four weeks pus was discharged from the bladder, and the tumour decreased gradually. For seven weeks the patient improved, and was then attacked by right pulmonary infarct: beginning with a rigor, the symptoms of

pneumonia set in, rusty sputum, pleuritic stitch, and hectic fever. This lasted six weeks. By the end of this time the tumour had disappeared and the uterus involuted.

A slow convalescence was established; and at the end of six months the patient was comparatively well, though still very weak.

Extra-uterine gestation in a baboon.—[The following interesting case seems to have escaped notice in England at the time it was published. Mr. Bland Sutton recently called my attention to it, and suggested that it should be placed before the readers of CLINICAL SKETCHES.—A. E. G.]

In March 1893, Waldeyer showed a rare, if not unique, specimen of this condition before the Obstetrical and Gynaecological Society of Berlin, and gave the following particulars of the case ('Cent. für Gyn.' for April 29, 1893).

In the night of March 3 to 4, a young female baboon, *Cynocephalus hamadryas*, died suddenly in the Zoological Gardens at Berlin. An autopsy was made by Dr. Sobotta, who reported as follows: The ape is thin and anaemic. On opening the abdominal cavity, a great quantity of blood, thin and uncoagulated, escaped. It appeared to come from a cyst, occupying two-thirds of the abdominal cavity, and lying among coils of intestine; the wall resembled omentum, but the latter was found separate.

On separating the coils of intestine, after evacuating the blood, an arm of an extra-uterine foetus was discovered, adherent, as was the rest of the foetus, to the intestinal loops. The latter were also adherent to one another.

On the cyst wall, as well as scattered over the peritoneum, were a number of pedunculated growths, reddish brown, and varying in size from a hemp-seed to a hazel-nut. Microscopic examination showed them to be fibromata.

The right ovary and tube presented the normal appearances. The uterus was not enlarged, but felt hard. The left upper angle was bent sharply forward. In the situation of the left tube a bluish-grey sac, the size of a small child's head, was found; it presented a large rent through which the umbilical cord, long and untwisted, passed to the foetus. In the sac the placenta was found, closely adherent to the wall.

The foetus was male, 18–19 cm. long (measured from vertex to root of tail), the epidermis was loose, the roof of the skull flattened, and the brain apparently deficient, so as to resemble an anencephalus. The epi-

dermis and hair could not be separated without injury from the serous coat of the intestines.

Waldeyer examined more minutely the internal genital organs. The uterus was 4–5 cm. long, half belonging to the corpus and half to the cervix; the cervical canal was quite closed by a plug of mucus; the uterine cavity was empty, and its mucosa was not thickened.

In Pavians, as in many other animals, the ovary lies in a half-open peritoneal pouch, round the upper margin of which runs the tube. This condition was found on the right side; the tube, however, appeared rather tortuous.

The gestation sac had an opening the size of a five-mark piece; this led into a smooth-walled cavity containing a second sac, likewise rent. The rent in the inner sac was ragged, and rather larger than the opening of the outer sac, which was further quite smooth.

The tube, distended and flattened, ran in the wall of the outer sac, above the rent; the abdominal ostium and the fimbriæ could be easily recognised; a probe passed into the ostium ran in the wall for a distance of two centimetres, and opened into the cavity of the outer sac. The left ovary, much flattened, occupied the lower third of the margin of the outer opening.

From careful microscopic examination Waldeyer concluded that the outer opening of the first sac was the widened natural orifice of the peritoneal ovarian recess above referred to, the outer sac constituting then this recess, with thickened walls. The inner sac was formed from the ovum; the opening in it was a rent. The small opening from the tube into the cavity of the outer sac might have been either a rupture or an additional abdominal ostium.

Waldeyer believed the order of events to have been as follows: The pregnancy was at first tubal; while the ovum was yet small it passed out through the third opening referred to (*i.e.* either through a rent in the tube or through an additional abdominal ostium) and came to lie in the ovarian peritoneal pouch, where the placenta became fixed, and where the foetus developed up to a certain point. Thereafter the wall of the ovum burst; the foetus passed out through the rent (the aperture in the inner sac) and also through the opening in the ovarian peritoneal pouch, and came to lie free among the intestines. It must have remained there some time, as evidenced by the adhesions and by the alterations in cranium and brain. The wall of the blood-cyst was composed of a thin false membrane.

Public Health

The infection of tuberculosis.—M. Bee¹ has published an interesting account of what he calls epidemic tuberculosis, occurring in three small places among the Alps; the one village had a population of 481, the other two were hamlets with populations of 51 and 46 respectively. In the first place (the village), tuberculosis was imported in the person of a young man, aged eighteen, suffering from phthisis. He infected a young girl and a man with whom he was frequently in contact, and in ten years eighteen previously healthy persons died of tuberculosis.

In the second place (the hamlet of 51 inhabitants), two soldiers returning from the Franco-German war, both suffering from tubercle, appear to have introduced the malady. Both these soldiers died, and in a short time the mother, a brother, two sisters of the one and two sisters of the other soldier all died of phthisis, as well as four other persons—in all 10 out of the 51.

In the third hamlet tubercle was introduced from Marseilles in the person of a young girl who had been nursing a tuberculous aunt. From January to October, in a single year, four other persons died of tubercle, all of whom had opportunities of coming into contact with the first case.

Such small isolated communities afford excellent opportunities for the study of infectious maladies.

Impure country water.—The Epping magistrates have declined to close a well which was reported by the Health Officer and Analyst to be grossly polluted, containing moving organisms, high chlorides, nitrates, nitrates, and ammonia.

No evidence could be adduced that persons had actually been made ill by drinking the water, and the 70th section of the Public Health Act of 1875 only gives power to close water supplies ‘injurious to health.’ The corresponding section of the London Act adds the words ‘or dangerous to health,’ which gets over the difficulty, and rural law requires amendment so as to read the same as the Metropolitan Act.

Dust in the air.—Arens² has made some quantitative estimations of dust which are interesting.

Operating in rooms or closed spaces, he drew measured volumes of air through loose cotton wool, drying and weighing the wool both before and after the experiments; some of his results are as follows:

	Mgrms. of dust per c.m.
Living rooms, school-rooms, &c.	1·4-8
Horse-hair factory	10
Saw-mills	15-17
Woollen factories	7-20
Flour mills	22-28
Foundries	1·5-20
Cement works	130-224

In estimating the dust in the open air a cylindrical surface was coated with lard and exposed. At the same time the velocity of the wind or air currents was determined. The fat was then washed off by means of a spray of ether, the ether passed through a filter, and the dust weighed. This research, lasting for sixteen months, showed that when the ground was moist the dust averaged from .01 to .09 milligrams per cubic metre, when dry from .09 to 2 milligrams per cubic metre. The quantity was found to depend far more on the dryness or dampness of the soil than on the strength of the winds.

Epitomised Lectures and Papers

NOTES ON SKIN-GRAFTING FROM THE LOWER ANIMALS¹

By ALEXANDER MILES, M.D., F.R.C.S.Ed.
Surgical Tutor, Royal Infirmary, Edinburgh.

‘MR. MILES communicated to the Medico-Chirurgical Society of Edinburgh a short digest of his paper on “Skin-grafting from the Lower Animals.”²

‘He has used dogs, rabbits, kittens, and frogs as the donors of skin, the best results having been obtained from dogs, and the least satisfactory from frogs. Young animals are always used. The ulcer is prepared, as in other skin-grafting procedures, by being made aseptic, and by being brought into a healthy state as regards its granulations, which must be neither redundant nor oedematous. The grafts are placed on the surface of the granulations without previous scraping.

‘The preparation of the grafts consists in killing the

¹ *Revue d'Hygiène et de Police sanitaire*, 1894.

² *Arch. für Hygiene*, Bd. xxi., s. 325-359.

¹ *Edinburgh Medical Journal*, September 1895.

² *Edinburgh Hospital Reports*, vol. iii. 1895.

animal, and, after shaving its abdomen, dissecting up the whole skin, leaving behind the subcutaneous tissue. It is floated out in warm boracic lotion, and cut into pieces varying in size according to the raw surface to be covered in (from 1 in. by $\frac{1}{2}$ in. to 6 in. by 1 in.). These are firmly pressed into the granulating surface, close up to the margins, and edge to edge. A dressing of protective, gauze and wool, with a splint, is then applied.

'The after-dressing is the most important part of the proceeding. It should be left undisturbed for at least forty-eight or seventy-two hours, and then the dressing should be changed with the utmost gentleness and caution. Subsequent dressings may be necessary every day, or every second day, according to circumstances.'

'Apparent sloughing of a graft is occasionally observed. It is due to the superficial layers of the skin being thrown off, the more vital deep layers living and growing. When pustules form on a recently grafted surface they should be punctured at once, and covered with an antiseptic dressing. Granulations sometimes grow up through grafts, destroying them. These are best removed with a sharp spoon. In all cases special precautions are necessary to prevent movement of parts until the grafts have fairly established themselves.'

THE TREATMENT OF FRACTURE NEAR A JOINT BY REST, AIDED BY MASSAGE AND PASSIVE MOVEMENT

By A. G. MILLER, M.D., F.R.C.S.E.

Lecturer on Clinical Surgery; Surgeon to the Royal Infirmary, Edinburgh.

Dr. Miller read a paper under the above title before the Medico-Chirurgical Society of Edinburgh, July 3, 1895.¹

Dr. Miller, like many other surgeons, considers the present method of treating fractures near joints unsatisfactory, because it so often happens that such injuries are followed by stiffness and comparative uselessness of the limbs affected, especially in cases of fractures near the wrist, elbow, and ankle.

The cause of these unsatisfactory results Dr. Miller considers to be the long period of rest maintained for the treatment of the fracture.

In considering this subject we must remember that the injury which causes the fracture also generally directly injures the joint itself—that is to say, we

have not only a fracture but a sprain. The rigid apparatus which is customarily applied is right for the fracture, but wrong for the sprain. The fear in the mind of the surgeon is non-union, but Dr. Miller remarks that in his experience ununited fractures are very rare, but stiff joints very common. He points out that rest alone does not produce ankylosis, but where there is a tearing of ligaments and injury to synovial membrane and tendons and sheaths of tendons, effusion of blood and serum around a joint, adhesions and contractions are likely to form which will materially interfere with the subsequent movement of the joint.

He instances Pott's fracture as a case in point. We must treat both injuries; rest for the fracture, and massage and movement for the joint effusion.

In a case of fracture of both bones of the leg in their lower third 'slightly compound' with much bruising and effusion into the cellular tissue, a box splint was applied and opened out twice a week, and the leg carefully massaged and the ankle moved with every precaution to prevent movement of the fractured portions of the bones. Five weeks later the result was satisfactory.

The advantages of this combined treatment are : (1) complete rest for the fracture, except for a few moments once or twice a week; (2) removal of effusion; (3) the prevention of adhesions; (4) stimulation of union of the fracture; (5) economy of period of treatment.

We all know that bony union is not a constant result of treatment of fracture, and especially as regards fracture of the upper third of the femur. We propose to illustrate this point in the next number of this Journal, for it would certainly seem that some modification of the usual plan of treatment is called for.

More direct removal of effusion by opening up the parts, more direct adjustment of the fractured bones, more local fixation of those fractured portions of bone and passive movement of the joints, seem to us the objects to be aimed at.

A TRACHEAL TUBE GUIDE, OR EMERGENCY TRACHEAL WOUND DILATOR¹

By FRANK LEMOYNE HUPP, A.M., M.D.

Attending Surgeon to the City Hospital, Wheeling, W. Va.

During the past year I have had occasion to open the trachea six times for the relief of the stenosis

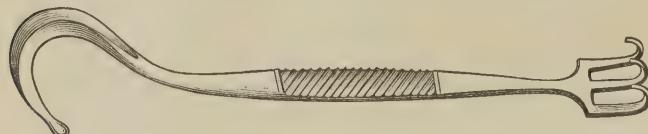
¹ *New York Med. Record*, July 27, 1895.

¹ *Edinburgh Medical Journal*, September 1895.

coming with laryngeal diphtheria, and in nearly every instance I have recognised the need of an instrument which could be so quickly and efficiently introduced into the windpipe that relief would be immediate, and that the cannula could be safely and accurately placed.

I wish to call the attention of the medical profession to an instrument which may be used where the patient is in immediate danger of suffocation, and where the introduction of a cannula is of supreme importance.

The tube guide is fashioned like a miniature Sims speculum, as may be seen by the engraving, terminating in a probe point, grooved on its convex side like the speculum, but having the two sides converging towards the probe point. When the tracheal rings have been quickly divided and difficulty is encountered in placing the cannula, the probe-pointed guide may



be quickly and accurately carried down along the finger and gently forced through the severed rings, and traction made in a direction towards the sternum.

If there be no cannula at hand, and no other cutting instrument but a penknife, with the aid of this instrument a child can be kept alive almost indefinitely until the tube arrives, there being no interference to the ingress of air.

The tube guide will also facilitate the cleansing process and the removal of membrane, and care in this direction, so urgently insisted upon by Dr. Pilcher, has certainly had much to do with diminishing the percentage mortality after opening the trachea.

The instrument is made by George Tiemann & Co., and is so constructed and of such a size that it may be carried in the vest pocket. I have had a three-pronged retractor placed at the other end of the guide for convenience instead of a simple handle.

THE RACE PROBLEM IN AMERICA

[The race problem of the Southern States presents itself in one of its acutest forms in South Carolina. That State is holding a Constitutional Convention, called to determine the political future of the negro race, which has been elected under conditions which

have excluded all but six negro members.—‘Times,’ October 2, 1895.]

The feeling which underlies this subject in America is not easily realised by Englishmen who have no special experience of the negro race; and although there may be differences of opinion even in the United States, yet the general view there seems to be that no amount of education will ever develop the negro into a naturally moral individual.

We are not infrequently horrified by reports of crimes committed in America by negroes upon girls and women, and such crimes are made the more repulsive by the brutality usually attending the committal, and by the rough and ready method of lynching of the offender which so commonly follows.

Dr. James Weir, jun., of Owensboro', Kentucky, describes¹ the characteristics of the sexual criminal, and explains the reasons which actuate the people to take the law into their own hands. He refers first to the white sexual criminal (meaning by the term an individual who commits rape), and considers that such men show plainly the signs of physical and psychical degeneration. This degeneration may be congenital or acquired, but the individual presents generally certain marked physical characteristics which are inherent in the negro race.

Dr. Weir examined two white men who had been guilty of rape, and both of them were dolichocephalic and prognathous. Their orbital arches were greatly enlarged, and their cheek-bones high and prominent, which characteristics he had already shown were an approach to primal ancestry. The genital organs of these men were abnormally developed, and the growth of hair upon their bodies rank and thick. Both of them had fair hair, and both had mal-formed ears; in one the lobes were long and pendulous, in the other there was complete absence of the antihelix. Their intelligence was somewhat defective. These peculiarities have also been noticed by Ottolenghi.

These men, although they knew they would probably suffer death for their crimes, yet became jovial and lighthearted when they found themselves safe from mob violence. It was considered that they resembled the child-like nature of savages in their manner.

Dr. Weir refers to a skull in his possession, of a criminal who it is believed raped no less than five different women, and he has published an engraving of this in an article in the ‘New York Medical Record’ for January 13, 1894. This skull points, he considers,

¹ *New York Medical Record*, May 11, 1895.

beyond a shadow of doubt, to an atavism or reversion to an ancestral type. The Neanderthal skull, and the skull of the Man of Spey, both prehistoric skulls, are startlingly like the skull of this modern violator.

'False sentiment as well as the law declares that all men are brothers. Science declares that such a conclusion is absurd and fallacious. There is too marked a difference between the dolichocephalism and prognathism of the normal savage, the negro for instance, and the mesocephalism and orthognathism of the normal white man for fraternal relationship. I have pointed out,' says Dr. Weir, 'the fact that the dolichocephalism, &c., of the white sexual criminal are abnormalities and the result of degeneration. The long head and the projecting jaws of the negro, however, are normal; they are anatomical characteristics peculiar to the negroid and other savage races. Again, the psychical abnormalities of the white sexual offender are occasioned by degeneration, while the mental habitudes of the negro violator are perfectly natural. It is time that mawkish sentiments were banished, and the negro placed in the category to which he belongs. The negro has had here in America some two hundred years in which to acquire civilisation. What folly to place his psychical development on the same plane with that of the white man who has the advantage of him by several thousand years! Civilisation, morals, are the result of evolution, of inherited experiences, therefore what arrant nonsense it is to suppose that the negro, who was a savage only yesterday, has become a moral and thoroughly civilised being to-day!'

'Native-born Americans, whose ancestors came from Great Britain and Europe, are remarkably free from the evil effects of degeneration, consequently the native-born white sexual criminal is of rare occurrence. Negro violators, on the other hand, are quite numerous, springing up everywhere in all of the Southern States, where his race is mostly domiciled. His criminality is not due to degeneration, but is the result of perfectly natural and, for him, normal mental habitudes. Let us study, for a moment, the psychology of this semi-civilised savage.'

'The childlike simplicity and happy-go-lucky carelessness of the negro, and I mean, throughout this paper, the true negro, not the half-breed, is notorious. The cares of to-day are sufficiently burdensome for him; he lets to-morrow take care of itself. Two hundred years of civilisation have given him a thin, a very thin, veneer of superficial morality.'

'The records of the police courts, wherever the laws against fornication are enforced, will show that

the negro, both male and female, has little or no regard for virtue. Northern sentimentalists have declared that the slave-owning whites were to blame for this moral laxity. This is nonsense, for it is a well-known fact that three half-breeds are born to-day where there was one born during slave time, thus showing conclusively that the negro women voluntarily yield up their virtue. But why argue this question? The history of the world shows that the women of the lower races, wherever found, eagerly enter, as a general thing, into concubinage with men of the white race. The men of the lower races passionately desire the embraces of the women of the white race, and this accounts, in a measure, for the numerous rapes upon white women by negroes.'

Dr. Weir does not think that legislation will ever make people accept the negro as their social equal, and so when a white girl is raped by a negro, the disaster is simply appalling. 'She feels,' says he, 'as though she had been dishonoured and defiled by some monstrous beast; her moral courage is gone for ever; her honour and her virtue can never be regained. These feelings are also entertained, to a certain extent, by her relatives, friends, and, in fact, by every white individual in the whole country.'

'Not long since, a young lady in a neighbouring State was dragged from her horse, carried into the woods, choked into insensibility, and repeatedly ravished by a negro. She was found, half dead, by a searching party late that night. Bloodhounds were put on the track of her assailant, he was caught, brought before her, identified by her, and at once hung. This young woman came near dying from her injuries, but finally recovered. She, however, never left her home again, but, soon after she was able to leave her bed, she went into an outhouse and hanged herself. Her father came home, and on finding the dead body of his daughter, seized his revolver and blew out his brains. The following night her brother drowned himself. Her relatives sold their real estate and personality and left their native town for ever.'

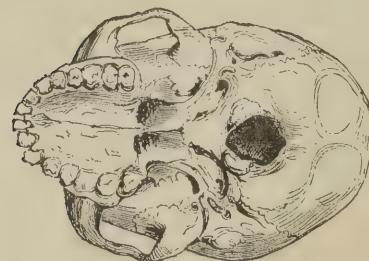
'I know a young woman who is compelled by force of circumstances to take long and solitary country rides. She never leaves home without placing a revolver on the buggy seat by her side. In the South women never go out after sundown without an escort. The violator and his savage lust are ever present to their minds. This is a fearful commentary on our boasted civilisation, yet it is true in every particular. The sexual criminal, both black and white, is

dangerous to society; so dangerous that the sooner he is destroyed the better it will be for society.'

Dr. Weir concludes his paper by an advocacy of lynching in these particular cases.

This kind of criminal is not, of course, peculiar to the negro race. The sexual criminal of various phases is probably to be found in every civilised country, and its association with degeneracy is a matter which has attracted the attention of many writers.

It may be useful to the reader to remark upon the observations first made, we believe, by Dr. Pritchard, upon these peculiarities of skulls being influenced not so much by climate as by the peculiar habits and mode of life of the different races.



PROFILE AND BASAL VIEWS OF THE PROGNATHOUS SKULL
OF A NEGRO (CARPENTER)

The differences are so great that if the antero-posterior diameter be fixed at 100, the transverse may vary between 99 and 62. Eighty is the average, and those skulls having a greater *cephalic index* are termed brachycephali, those which are below this standard are termed dolichocephali.

The *prognathous* skull is chiefly found among the most degraded tribes of men, and has been especially associated with the negroes of the Gold Coast, whose skulls appear as if compressed laterally. The prognathous skull is to be found in various parts of the globe, but always belonging to a low type of man.

Dr. W. B. Carpenter gave an excellent summary of the subject in Todd's 'Cyclopaedia of Anatomy and Physiology,' and a shorter account appears in his 'Principles of Human Physiology.'

With the prognathous skull the temporal muscles rise high on the parietal bones, the cheek bones project forwards and not outwards. The upper jaw projects forwards. It will be noticed in the illustration that the incisor teeth of the two jaws are at an obtuse angle to one another. The facial angle is greatly diminished, and also a real (not only relative) depression of the forehead.

Many interesting specimens of prognathous skulls among various races are to be seen at the Royal College of Surgeons Museum.

These facts are, of course, not of recent discovery, but they cannot be too generally recognised, and it seems to us that Dr. Weir has done well to discuss the connection between sexual criminality and the possession of a prognathous form of skull.

This knowledge might sometimes be of service in police investigations.

We believe that this opinion regarding the negro has much influence in shaping public feeling in America in respect to the race problem.

The Holbein Picture of the Barbers' Company



HERE has been much written lately about this celebrated picture, and we assume that our readers will be interested in knowing something of its history.

In the 'Annals of the Barber-Surgeons,' compiled from the original records by Mr. Sidney

Young, F.S.A., and published in 1890, will be found a full description of it.

Although the picture has for long been known and described as 'the granting of the charter to the Barber-Surgeons,' it has been shown by Mr. Young that it really represents the occasion of the union of Barbers and Surgeons in the year 1540, as we stated in the July number of this Journal. At the time of the giving of the charter to this company, 1512, the king was only twenty-one years of age, whereas in 1540 he was forty-nine, which accords with his appearance in the picture. Moreover, Vicary, Ayleff, Harman, and



& Cork, &c. Illustrissimi Ordinis Praeceptoris Episcopi

*Sedem annos curvatum velutine labefactum, purp. fuscum, summa flanaria mta. suis humeris
Sociati Chirurgorum Londiniensium in uia manu data copiose in corone clada adseratores.*



the others represented were members of the Court in 1540, but not in 1512. It therefore seems certain that the picture represents the union of the Barbers' Company with the Guild of Surgeons accomplished by Act of Parliament in 1540, and the fact that the king is holding a charter with sealed pendant instead of an Act of Parliament must be considered an artist's license to give a more effective appearance than would have been produced by the king holding the simple roll of an Act of Parliament.

Vicary, who is receiving the document, was Master from September 1541 to September 1542, and therefore is placed in the chief position in the picture.

Mr. Young, who is now for the second time Master of the Company, considers that this picture should not be looked upon as strictly historical, but rather as a commemorative picture. The painting is 10 ft. 2 in. long by 5 ft. 11 in. high, and is painted on oak panel. It shows a room in the palace (said to have been Bridewell), which is hung with tapestry. The king is represented with a florid complexion and sandy hair, the eyes small, but animated and restless. The expression on the countenance is that of impatience, and he seems to be thrusting the document hastily into the hands of Thomas Vicary. In his right hand he holds the sword of state, resting on his knee, on his head is a jewelled crown, on his left leg the Garter, on his neck the collar of the order. All the details of the king's dress are most beautifully executed.

On the king's right are the two royal physicians, Dr. John Chambre and Dr. William Butts, and in the background Thomas Alsop, Apothecary.

On the king's left are fifteen members of the Court very richly attired. The first of these is Thomas Vicary, Serjeant-Surgeon; next Sir John Ayleff, Surgeon to the King; next, Nicholas Simpson, the King's Barber, who, like Vicary and Ayleff, wears a skullcap, all the others having their heads bare. Then comes Edmund Harman, King's Barber, who was one of the witnesses of Henry's will. Next to him is James Monforde, King's Surgeon, then John Pen, King's Barber; Nicholas Alcocke, and, at the end of the front row, Richard Ferris, who, like Monforde, was Surgeon to the King.

Of the seven figures in the back row, the names of only two have been preserved—namely, Christopher Salmon and William Tilley.

Mr. Young states that 'this picture of Holbein's is not surpassed, if indeed it is equalled, by any other of that master. Every part is most elaborately and delicately finished; the position of none of the figures

is constrained, and there is no attempt at theatrical effect, yet every person represented is in action, the colouring is chaste and kept down, nor is there any of that hardness and stiffness often observed in Holbein's pictures. Its reputation has been truly said to be world-wide, while it has been eulogistically described by some one to be "as glowing as a Titian and minutely faithful as a Gerard Douw."

'The names of the persons represented have been somewhat rudely affixed to their effigies, probably a few years after the picture was painted; and, whilst we cannot but deplore the disfigurement, it is more than compensated for as the means of identification of so many of our illustrious predecessors. The tablet, with inscription, has been said to be of later date than Holbein's work, and to have been painted over a window, through which was once seen the old church of St. Bride; this, however, is most improbable, as it is personally dedicatory to Henry.'

The inscription is reversed in our representation, *a fact which will be explained below*. The translation of it is as follows: 'To Henry the Eighth, the best and greatest king of England, France, and Ireland, Defender of the Faith, and next to Christ, supreme head of the Church of England and Ireland, the Company of Surgeons dedicate these, with their united prayers.'

A grievous plague had ravaged the region of England,
Afflicting man's spirits and penetrating his frame;
God, pitying from on high this remarkable scourge,
Commanded thee to perform the office of a good physician.
The light of the gospel flies around on glowing wings,
This will be the balm to enfeebled minds:
Whilst the disciples of Galen meet to raise a monument
to thee,

And all disease is swiftly dispelled by thy power.
We, therefore, a suppliant band of thy Physicians,
Solemnly dedicate this house to thee,
And mindful of the favour with which thou, O Henry, hast
blessed us,
Invoke the greatest blessings on thy rule.

The following is a short description of the individuals represented.

THOMAS ALSOP, to whom Henry VIII. left by his will 100 marks.

DR. WILLIAM BUTTS, famous for his memorable interference with the king on behalf of Archbishop Cranmer in 1544, when the Roman Catholic party in the Council endeavoured to procure Cranmer's committal to the Tower.¹

¹ See Strype's *Memorials of Cranmer*, Oxford edit. 1812, pp. 177-181

Shakespeare has also referred to this in his 'Henry VIII.' act v. sc. 2. Cranmer's secretary, aware of Butts's great influence with the king, sent for the Doctor, and acquainted him with the slight which had been put on the Archbishop by keeping him standing in the ante-room of the Council Chamber, among lacqueys and serving men. The reader should refer to passages in Shakespeare describing this incident.

Dr. Butts must have had one of the best practices of any man of his time. There are several references to him among the State Papers at the Record Office, of which Mr. Young gives several examples. He died on November 17, 1545, and was buried in Fulham Church, where there is (or was) a monument to his memory.

DR. JOHN CHAMBRE, whose prominent position in the picture is in accord with the fact that he was not only physician to the King but also a great favourite with him, holding several clerical preferments as well as that of physician, was a Fellow and Warden of Merton College, Oxford. In a list of persons to whom Wolsey in 1526 assigned lodgings at the King's House when they should repair thither, occurs the name of Dr. Chambre. In 1528 the king seems to have presented the Doctor with a piece of plate weighing 24 $\frac{3}{4}$ ounces. Dr. Chambre was Dean of St. Stephen's Chapel, Westminster, Canon of Windsor, Archdeacon of Bedford, Prebendary of Comb and Harnham in Salisbury Cathedral, Treasurer of Wells Cathedral, and beneficed in Somersetshire and Yorkshire. Royal physicians seem to have been better provided for then than now. Chambre was one of the physicians of Queen Jane at the birth of Edward VI., he was also in attendance on Anne Boleyn in her confinement with Elizabeth. His name is mentioned with that of Linacre and three others in the Charter to the College of Physicians in 1518. He died in 1549.

The most prominent figure on the king's left is Thomas Vicary (sometimes spelt Vicars and Vyccary), Master of the Barbers in 1530, and of the Barber Surgeons in 1541, 1546, 1548, and 1557. He was a man of great eminence in his profession. He was Surgeon to St. Bartholomew's Hospital, Serjeant-Surgeon to Henry VIII., Edward VI., Mary, and Elizabeth. He was the author of 'The Profitable Treatise of Anatomy,' in 'The Englishman's Treasure,' and 'The true Anatomie of Man's Body.'

SIR JOHN AYLEFF (also spelt Aylif, Alyff, &c.) was Master of the Barbers in 1538 and Surgeon to the King. Ayleff treated Henry for fistula, and cured

him at Brinkworth, for which Henry bestowed upon him a great estate in gratification.

He subsequently became a Merchant of Blackwell Hall, Sheriff of London, and Alderman of Bridge Without in 1550. Sir John Ayleff died in 1556, and was buried in the Church of St. Michael Bassishaw, where there was formerly a marble monument to him.

NICHOLAS SIMPSON. There seems to be no account of this individual, except that he was 'King's Barber' and Master of the Barbers in 1537.

EDMUND HARMAN, 'King's Barber,' was Master in 1540. Henry bequeathed 200 marks to him, and he was one of the attesting witnesses to the King's will.

JAMES MONFORDE (or Mumford), King's Surgeon, was Upper Warden of the Company in 1540 and in 1543, but never served as Master. He gave the company their silver hammer, still used by the Master in presiding at courts.

JOHN PEN was 'King's Barber' and Groom of the Privy Chamber. He was Master of the Barbers' Company in 1539. He was one of the fifteen persons who alone were allowed to enter the Privy Chamber.

In a manuscript for the regulation of the household of Henry VIII. occurs the following quaint order concerning the King's Barber, which we have expressed in modern spelling as follows: 'It is also ordained that the King's Barber shall be daily by the King's uprising, ready and attendant in the King's Privy Chamber, there having in readiness his water basins, knives, combs, scissors, and such other stuff as to his room doth appertain for trimming and dressing of the King's head and beard. And that the said barber take a special regard to the pure and clean keeping of his own person and apparel, using himself always honestly in his conversation, without resorting to the company of vile persons or of misguided women, in avoiding such danger as by that means he might do unto the King's most royal person, not failing thus to do upon pain of losing his room, and further punishment at the King's pleasure.'

It seems, according to this manuscript, that it was the custom of the King to have a bath every Saturday night, and then only, it further adds, 'if it please the King to cleanse his head, legs, or feet.'

NICHOLAS ALCOCKE. Nothing is known of him, except that he was Surgeon to Edward VI.

RICHARD FERRIS (or Ferrers) was Master in 1563, and Sergeant-Surgeon to Elizabeth. He also benefited under Henry's will to the extent of 100 marks, and was one of the King's Surgeons.

The engraving from which our illustration is taken appears as a reverse of the picture, the artist having copied it direct upon the copper plate, reversing only the writing on the wall. We have again reversed it so as to show the picture correctly, and thus the writing is here shown backwards.

It is through the courtesy of the Master, Mr. Sidney Young, F.S.A., that we are able to give so good a representation of this interesting picture.

A description of the picture appeared in 'The Medical Press and Circular' for September 4, from which we quote the following.

' Holbein's last picture, that of the Barber-Surgeons, was his largest. It is, as Pepys called it, "not a pleasant, though a good picture," and is painted on vertical oak boards, being 5 ft. 11 in. high by 10 ft. 2 in. long. It seems to have been begun about 1541, according to a writer in "The Leisure Hour" for September, and finished after Holbein's death in 1543, and it has evidently been altered since its first delivery. The tablet, for instance, was not always in the background, for the old engraving in the College of Surgeons has a window in its place, showing the old tower of St. Bride's, and thus indicating Bride-well as the site of the ceremony. The outermost figure to the left, too, is omitted, and, according to some critics, the back row of heads are all post-Holbeinic. The names over the heads appear to have been added in the time of Charles I., and it is significant that only two portraits in the back row are so distinguished.'

' A thousand years ago the healing art, such as it was, was entirely in the hands of the ecclesiastics and the Jews. The clergy had the bulk of the practice; it seemed to be only natural that they should have the cure of the bodies as well as that of the souls. But about 1150 there arose an anti-something agitation—as such agitations nowadays arise—which required the clergy to abstain from surgery, "as surgery required the shedding of blood." In 1163 this matter came up at the Council of Tours, and the agitators had their way. Then a curious thing happened. The clergy, being tonsured, could not do without the barbers to keep their heads shaved, and the knights of the razor were just the sort of men likely to be of use in surgical operations. In fact, the monk's barber was generally his assistant in such matters, and when the Council's decree was passed the monk kept to medicine and handed over surgery to his assistant. Hence the barber-surgeons. It did not take long, however, for

the younger men to discover that there was no necessary connection between haircutting and surgery, and, in fact, that the association was rather absurd; so that in a very few years the more educated and scientific men dropped the shaving and practised as surgeons only. The barber-surgeons in time formed themselves into a guild—it was in 1308 that Richard le Barber was sworn in at Guildhall as first Master of the Barbers' Company; the surgeons also came to have their guild, and the sort of feeling that existed between the two guilds is conceivable. This Act of 1540 was a sort of eirenicon. The property of both guilds was thrown together. The company was to consist of surgeons and barbers, "no surgeon to practise barbery; no barber to practise surgery, except in so far as drawing teeth"; and to encourage the study of anatomy the king did graciously assign the company four malefactors per annum for dissecting purposes.'

Health and Holiday Resorts

BATH



LTHOUGH Bath is one of the oldest cities in this country, and although the virtues of its waters have been recognised and applied remedially from immemorial times, yet the discovery and unearthing of its Roman Thermae is a matter of comparatively recent years.

Standing among these Roman works, which date from an early period of the Christian era, the visitor might easily imagine himself in Rome itself, except for one particular. Nothing in Rome so nearly approaches the realistic as the Roman baths now seen at Bath. We miss the colossal structure of the baths of Caracalla, or even the extent of the baths of Diocletian, but so much remains at Bath of the original Roman work, and the original hot springs, that practical use of the former might be made at the present day.

Not only are two of these old baths filled with running warm mineral water, but preparations are in progress for bringing the other extensive Roman structures into service for use as moor or mud peat

baths, such as we see at Franzensbad, Marienbad, and Carlsbad in Bohemia.

Our illustrations of two of these old baths will show what they are like.

The unique character of the Bath water.—Over and above all other peculiarities of the Bath water is the fact that it is the only *hot* mineral spring in Great Britain. It comes to the surface at a high temperature, and is possibly volcanic in its origin. It has continued for a very long period uniformly a sulphated lime water, with a uniform temperature and in uniform volume. The water comes from three separate springs, although they probably have a

In the Pump-room itself the water steams and bubbles as it enters the basin from which the attendants supply it in glasses to those who have to take it internally.

As to the uses of this water, we hesitate to tell our readers that it is beneficial especially in cases of rheumatism, gout, dyspepsia, biliary and liver complaints, and skin diseases, because this much, at least, they are sure to know; but we must state that both by analysis and practical observation it compares favourably with foreign springs of a similar character.

In an analysis of the King's Bath made by Mr. Charles Ekin, F.C.S., F.I.C., for Mr. H. W. Freeman's

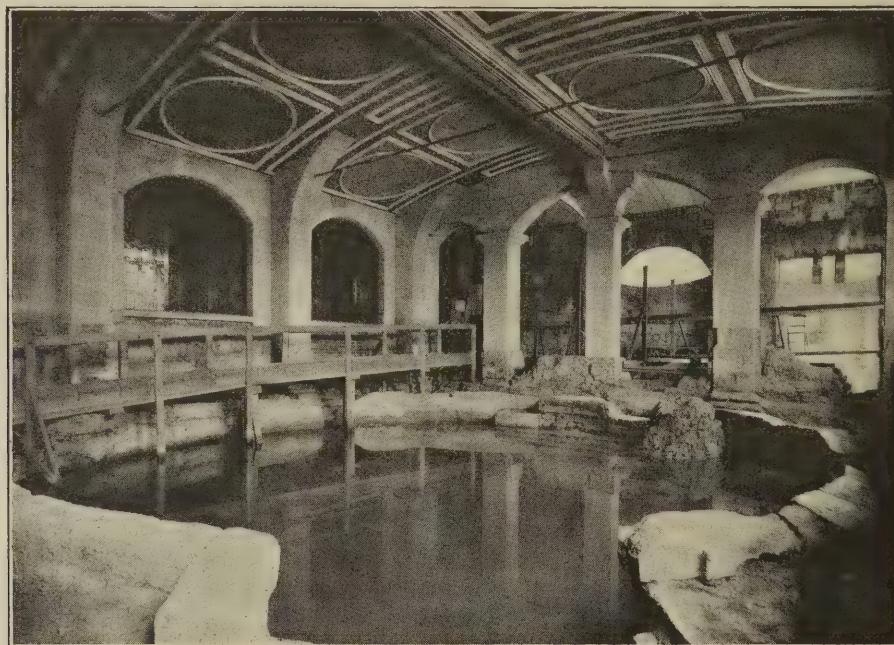


FIG. 1.—THE CIRCULAR ROMAN BATH

common origin. The Cross Bath has a temperature of 104°, the King's 117°, and the Hot Bath 120° F. The only other thermal spring in England is at Buxton, but its temperature is only 82° F.

The practical value of the Bath waters.—It is quite impossible in this short article to give anything like a complete description of Bath, its waters, and the treatment so effectively carried out at this 'queen of all the spas of the world,' as Bath has been poetically styled, and therefore we propose only to describe what we saw at our recent visit.

The Pump-room and the various baths are within a stone's throw of one another, and from the former you can look out upon the old Mediæval King's Bath.

excellent work on 'The Thermal Baths of Bath,' it is shown that it contains of solid matter 165·2 grains per gallon, and these are distributed as follows:—

	Grains per gallon	Parts per million
Calcium	28·1449	402·07
Magnesium	3·6569	52·24
Iron	0·8400	12·00
Potassium	2·154	30·78
Sodium	9·42	134·65
Silica	2·5012	35·73
Sulphuric acid	74·2915	1061·30
Chlorine	19·3900	277·0
Carbonic acid combined	6·160	88·0
Ammonia	0·0175	0·25
Nitrogen as nitrates	0·0035	0·05

It has been calculated that if the sulphates of lime and the soda, the chlorides of sodium and magnesium, and the other minerals which are evolved from these springs were solidified, they would form in one year

encounters some mass of heated matter by which it is converted into steam, and then drawn upwards through a fissure by the expansive force of heat and steam, or by hydrostatic pressure.'

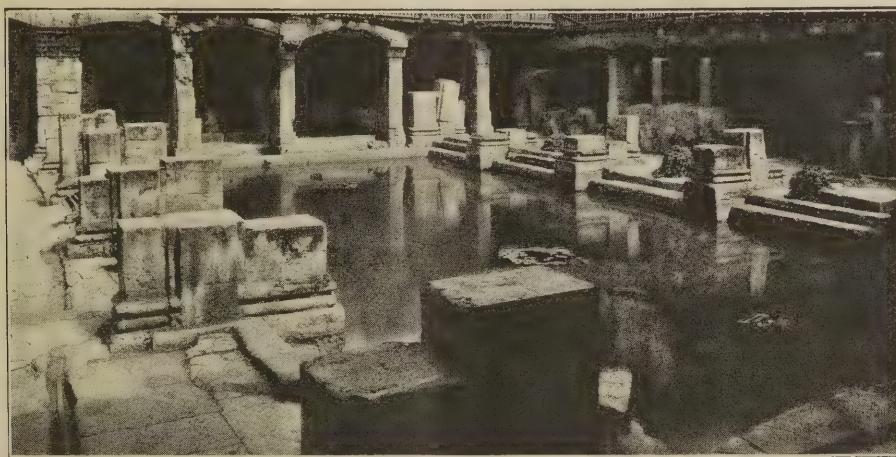


FIG. 2.—THE LARGE RECTANGULAR ROMAN BATH

a square column 9 feet in diameter and 223 feet high, so we may imagine the sort of cavity which is being produced somewhere in the earth to supply this water.

The carbonic acid gives the sparkling appearance to the water, which is a powerful stimulant to the nervous system.

It is generally considered that the particular

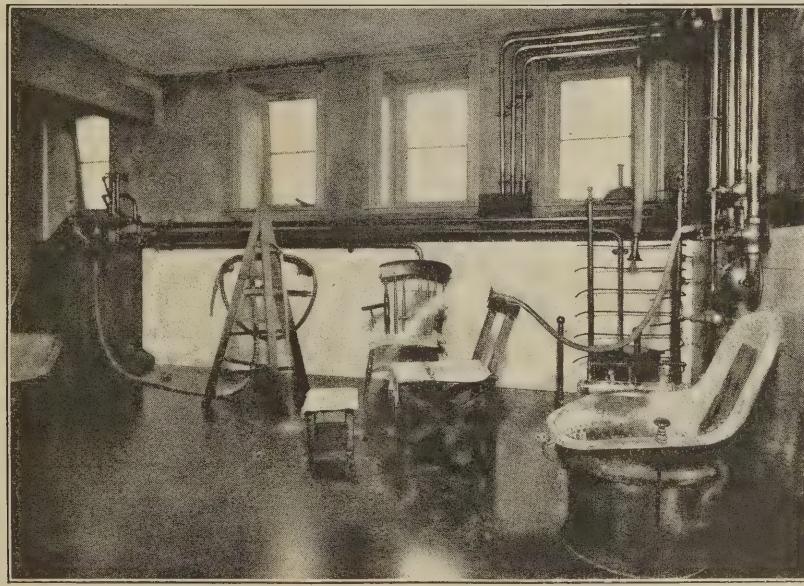


FIG. 3.—THE 'TABLE' AIX MASSAGE BATH

The gases evolved are carbonic acid, nitrogen, and oxygen. Probably the water is supplied by 'some mountainous region, perhaps a distant one; that it then descends through rents or porous rocks till it

combination of ingredients and their temperature has more to do with the effect of mineral waters than the exact amount of any one salt.

Carlsbad may be taken as an example of this fact,

for although the solid matter is considerably less than in the springs of Marienbad and Tarasp, yet the Carlsbad is generally preferred to them on account of its high temperature. It has been said that in this respect what Carlsbad is to the rest of the European continental spas, so are the thermal springs of Bath to the other spas of the British Isles.

The Nauheim or Thermalsoolbäd treatment.—This treatment for cardiac disorders, which we described in the June number of this Journal, is carried out very efficiently here, and two patients in the gas baths were being carefully watched by a nurse during the administration at the time of our visit. Dr. Schott's resistive movements are also carefully practised.

The Aix system of massage is most thoroughly attended to, and this is partly due to the fact that some of the Aix *doucheurs* and *doucheuses* go to Bath for the winter. We saw some of them at work, and much admired the quiet systematic manner in which they massed their patients under the douche.

The Crane-chair bath.—A patient suffering from stiff rheumatic joints was lowered by a crane-chair



FIG. 4. — THE MALE AIX MASSAGE BATH

into a bath, and as she was also suffering from sciatica, the thigh was played upon by a strong douche applied beneath the surface of the water.

The **Fine bath** is another feature of this place, as well as the Sulphur system of bathing and douching.

The 'Table' Aix massage douche.—At the end of the long gallery of baths one enters a triangular room which is most elaborately fitted up with every conceivable douche and spray. The patient sits in a small cavity in one of Cadet's hip baths, and is played upon by sprays from every direction, either one or many being applied at the same time. The Needle spray, and variously named applications of the water, are here arranged for. A great feature, and one which we believe is peculiar to Bath, is the table massage, which is added to the Aix double massage (see fig. 3).

Massage while the patient is reclining seems to us of great advantage in addition to the massage in the sitting posture, and throughout the Aix treatment the table massage, as well as the reclining bath, is made use of in addition to the ordinary plan.

For swimming we can speak from personal experience of the delicious effect of the Bath water. From the Grand Pump-room Hotel the visitor can enter the lift beside his bedroom door, and be taken down to the baths which adjoin the hotel, and is enabled to take his morning swim with a very small amount of trouble.

The Berthollet or natural vapour bath. This is one of the more recent additions to the baths, and can be used with or without the tepid shower bath. The chemical constituents of the water are absorbed by the skin in this way, and their value thereby greatly increased.

In the various forms of gout and rheumatism the limb is enclosed in one of the tubes provided for the purpose, and steamed for some definite period. It is then surrounded by cotton wool, and bound up lightly with a flannel bandage. Great relief is soon experienced, followed by a marked and general subsidence of the attack.

Old chronic joint cases are also treated in this manner.

Inhalation and pulverisation rooms.—Two large rooms are fitted with a variety of ingenious appliances in the form of Siegle's sprays similar to those at Marliez. These sprays pulverise and atomise the water in various forms, which can thus be applied to the throat, nostrils, eyes, or other parts. The room of the Umbrella spray is said to be most beneficial in cases of chronic bronchial, laryngeal, and pharyngeal catarrhal diseases, bronchitis arising from dilated bronchia, as well as in cases of diseases of the throat, nose, and similar affections.

We were much impressed by the thorough and enthusiastic manner in which the baths are being worked at Bath. One thing alone seems wanting, and that is a little more modernising in the shape of luxuries and amusements for the patients who visit this place.

The hotel accommodation is good in its way, but is somewhat old-fashioned, and a little more music and general entertainment is very desirable. However, we believe the Corporation, who have the entire



FIG. 5.—THE FEMALE AIX MASSAGE BATH

management of the baths, fully realise this fact, and have determined in the coming winter to do their best in this direction.

The baths are open all the year round and to any one under the direction of their medical adviser, and all the doctors in Bath have equal facilities in this respect. We received great assistance in making our inspection from the authorities, the doctors, and the bath attendants, but we are also indebted to the volume already referred to, written by Mr. H. W. Freeman, F.R.C.S., the late Mayor of Bath.

THE BRITISH ASSOCIATION

The annual meeting this year was held at Ipswich, from September 11 to September 18. Sir Douglas Galton follows Lord Salisbury as President, but in Lord Salisbury's absence Lord Kelvin took the chair.

Sir Douglas Galton, in his Presidential Address,

naturally referred to the great loss which science had sustained by the death of Huxley. He then discussed the origin of the association, described its democratic constitution, and gave a history of its achievements from its formation to the present time, especially dwelling upon the development of electricity, physiology, and anthropology, referring to Darwin's work in the two latter subjects. Bacteriology, antiseptics, and various other subjects of medical interest were also dealt with. In referring to the purification and utili-

sation of sewage, Sir Douglas Galton remarked that it was not until the chemist called to his aid the biologist that a scientific system of sewage purification was evolved.

In Section A, under Mathematical and Physical Science, Professor W. M. Hicks, Principal of Firth College, Sheffield, gave an excellent discourse upon the constitution of matter and of ether. He also referred to the cause of gravitation, in which he expressed an opinion that the elasticity of form possessed by the ether cells, which he had previously described, might account for gravitational stresses. He explained the possibility of the correctness of this theory by suggesting a simple case where, all the cells being exactly alike and the medium in equilibrium, should one or several cells grow in excess of the others they would produce a strain, and as we do not believe in the possibility of two different media occupying the same space, there would be thereby set up a cause of motion, and it may be that such strain may prove to be the cause of gravitation.

Mr. Eric Bruce read a paper upon the subject of 'Lightning Flashes.' He referred to the fact that sheet lightning was generally the reflection of a lightning flash by a cloud, but if a cloud containing one or more openings intervenes between the flash and the reflecting cloud, the light from the flash will be faintly reflected from a few points only of the reflecting cloud, and we shall have as many inverted images of the flash as there are openings. He doubted whether such reflected flashes could be intense enough to affect a photographic plate.

Professor Michie Smith read a paper on 'Indian Thunderstorms,' describing the constant occurrence of sheet lightning for several months in the year which takes place. It is not a reflection of distant lightning flashes, but consists of an actual discharge of

electricity from cloud to cloud, or between two portions of the same cloud. Morning lightning is always in the north-east direction. The time of occurrence depends upon the hour when the sea breezes set in. He thought that the effect might be produced by the coming in contact of the sea breeze, which is moist and dustless, with the land breeze, which is dry and dusty. The presence of dust in a cloud is shown when it sinks rapidly. The dust is then seen at the edges, and gives the iridescent appearance frequently observed.

Mr. John Aitken confirmed Professor Michie Smith's theory. He believed thunderstorms resulted from an influx of pure air into dusty regions, the thunderstorm being the effect of the purifying of the air, not the cause of it. He gave an instance of thunderstorms occurring for several days in succession without any apparent purification of the air, but eventually the air was purified and the thunderstorms ceased.

The effect of combination tones upon the ear.—A discussion upon this subject was opened by Professor Rücker. The question was whether combination tones are produced externally to the ear or within it, and he referred to other observers, and especially to Helmholtz, who considered that they were produced in the ear under normal conditions, but sometimes occurred externally.

Professor Thompson remarked that König considered that an essential difference existed between beats and 'difference tones,' because instruments affect the air mechanically, and such mechanical excitation affects the membrane of the tympanum, but 'difference tones' do not affect the membrane.

Dr. G. J. Stoney took part in this discussion, remarking that resonance took place to a great extent by the mouth cavity, referring to the circumstance that any one while travelling in a train going through a tunnel could whistle or sing to himself with satisfaction notwithstanding the noise outside. The sounds are resonated by the mouth, and selection of sounds takes place in the ear or brain.

In Section B, Chemistry. Professor Raphael Meldola, F.R.S., gave a comprehensive address upon the development of chemical science, and showed how chemistry encroaches upon biology through physiology. He thought that the chemist and the physiologist might join hands, and endeavour to discover the great mystery of vital chemistry.

In Section C, Geology. Mr. W. Whitaker discussed the results obtained by well-boring, and especially in reference to the search for coal. The trials at Dover had been successful, several hundred feet of coal measures having been found without reaching their base, with several beds of workable coal.

Good reasons could be given both for and against the selection of many places for trial except in or near London. There seemed good reason for supposing that in the south-east of England—speaking roughly, from Richmond to Dover—we may infer that coal is to be found. Near Burford, in Oxfordshire, also, some signs of coal have been discovered, and upon the whole Mr. Whitaker thinks that should our present supplies lessen or become exhausted, we have good reason for supposing that fresh coalbeds would be forthcoming in the districts referred to.

There were also three very practical papers read by the President of the Section, Mr. W. Whitaker, Mr. Joseph Francis, engineer to the New River Company, and Mr. F. W. Harmer upon the recent borings in the eastern counties for water and coal.

Section D. Bacterial life in river water, by Dr. E. Frankland. The object of the experiments and researches referred to had been to ascertain the effects of temperature, sunshine, and quantity of flood water upon the bacteria contained in our rivers.

The germicidal power of sunshine has been well proved, but he found that this power ceased beyond two feet of depth.

The floods necessarily extended the range of deleterious bacterial influence, and yet if water is stored it becomes, he stated, purified from these organisms.

Section E. Scurvy in Arctic expeditions.—Mr. A. Montefiori, who had organised the Jackson-Harmsworth Polar expedition, described the progress of the voyage up to a recent date. So far it had been successful from a scientific point of view, but the price paid for their victory over nature was not a light one.

It seems that as many as twelve men were invalidated by scurvy, although they worked most nobly while almost unable to stand.

According to the 'Times' report of Mr. Montefiori's remarks, 'one after another the men became victims of scurvy.' We should like to know what means were taken to combat this disease, for with our knowledge of the subject in the present day we do not expect to

meet with scurvy, to any serious extent, in the case of a well-equipped expedition.

Seamen and explorers are not always ready to listen to the advice of their medical advisers upon this subject, and we well remember the scandal in connection with the Nares expedition, when the advice of the medical man attached to it regarding the taking of an ample supply of lime-juice was utterly ignored, a serious outbreak of scurvy occurring for which no effectual remedy was at hand.

In Section H, Anthropology, some very interesting papers were read. Mr. Myres had investigated the North-Western tribes of Canada. In the Nicola Valley the old Stuwi Hamuq tribe had become extinct, and only about twenty words of their language were left to us.

In another tribe was found the custom of avoidance between mother-in-law and son-in-law. They were ashamed to talk to each other, or even to see each other. The mother-in-law was in the habit of leaving the house before the son-in-law entered, or hid her face, or turned the other way while he was near.

Prehistoric man.—Dr. Garson read a very interesting paper upon a Palæolithic skeleton from the Thames valley, being the first skeleton of the kind found in England. This specimen came from Galley Hill, near Northfleet, at about ninety feet above the present level of the river. The skull had enormous brow ridges, similar to those of the famous Neanderthal and Spey skeletons. The surface of the skull was rough.

Captain S. L. Hinde read a very gruesome paper upon cannibalism, showing that it was very general among the races in the Congo Basin, and in some parts seemed to be increasing. He described the methods which they adopted in preparing their victims, and the parts of the body the different tribes had a preference for.

In the country of the Balétéla, old people, as well as the lame, maimed, and blind, were never seen. They were all eaten. Even parents were eaten by their children when the former showed the least sign of old age. Therefore this race was a very fine one, as all their cripples and old people were thus got rid of.

After a fight the camp followers devoured all the dead, which was really a sanitary proceeding.

Mr. Elworthy described himself as a 'devil's advocate,' and thought there was something to be said

in favour of cannibalism. The idea underlying the custom seemed to be that all the good qualities of the dead were imbibed by those who ate them. There were traces of this idea even in civilised countries.

Mr. Hartland thought that probably the earliest form of cannibalism was that of eating all the relatives of a deceased person—a practice which had extended over the greater part of the world.

In Section K., Botany, Mr. H. Wager read a paper upon the 'Structure of Bacteria.'

A popular lecture on 'Colour' was given by Dr. Alfred Fison, at the conclusion of which Lord Kelvin remarked that it was impossible not to admire the manner in which Dr. Fison had given much in a short time.

It will be observed that we have not attempted to give anything like a complete summary of the work of the British Association, but after reading through the reports of the meeting we have simply referred to a few of the papers which we thought might be interesting to our readers, and which might lead them to refer to fuller accounts should they wish. The usual excursions followed the reading of papers, and that to the Broads was a very attractive one, as Dr. Bately, the Medical Officer of Health for Yarmouth, very kindly described to the visitors the history and archæology of the district. Among other interesting subjects he referred to Brundell, a place about six miles from Norwich, where remains had been found of what appeared to be a Roman dockyard, in the grounds of Dr. Beverley.

The Practitioner's Note Book

Castration for hypertrophy of prostate.—Dr. White ('Annals of Surgery,' July 1895) again contributes his experiences of this operation. He finds that the prostate atrophies rapidly in 87·2 per cent. of the cases operated upon, and that long-standing cystitis the result of prostatic enlargement, disappears or greatly diminishes in about 50 per cent. Dr. White urges the value of the operation in spite of the opposition which has been raised against it.

Kummel ('Berl. Klinic,' August 1895) writes upon the same subject. He considers the operation distinctly beneficial in many cases, but when the detrusor muscle is paralysed, so that the bladder cannot be completely emptied even with a catheter, then the result of the operation cannot be expected to be so good.

Ligature and division of the vas deferens on both sides has been performed to relieve the effects of hypertrophied prostate by Isnardi ('Centralb. für Chir.'), in a man aged 71, with great relief to the symptoms.

On the reparative process in the human body.—Dr. Samuel Wilkes, in his address in Pathology at the last annual meeting of the British Medical Association, made the following remarks in illustrating how serious lesions may be repaired.

'I will endeavour to illustrate my meaning by one or two examples, and will take first the case of phthisis. During a long experience in practice I have seen nothing so common as an error in the prognosis of this disease. And why? Because the constructive changes have been confounded with the destructive ones; in fact, the very signs which the beginner regards as the strongest proofs of disease are those which indicate the probability of cure. He learns the signs of a cavity in the lung, and then, recognising its existence in a particular case, he immediately condemns his patient, feeling instinctively that nothing could be more terrible than the existence of a large hole in a vital organ. And yet a moment's consideration would show him that the dull tympanitic note, the absence of vibration in the chest walls, their sinking in, the pectoriloquy, &c., all point to a hard-walled cavity due to a reconstructive action following the destructive process. The formation of this fibrous tissue has shut off the part destroyed from that of the healthy lung; a reparation and cure have been going on, and produced those marked physical signs which he has regarded as indicative of disease. No wonder, therefore, that a mistake in prognosis has been made, and that, after condemning a patient who had manifested such physical signs, the medical man has been surprised to find him still living years afterwards.'

Guaiacol as a local anaesthetic.—A solution of guaiacol in olive oil one to ten, injected subcutaneously, has been found as effectual in producing local anaesthesia as cocaine by Lucas-Championnière ('Bull. de l'Acad. de Méd.', July 30, 1895), but Ferrand has found serious collapse to follow an external application. Experiments are being carried out in France upon the action of this drug, and it will be well to await their results before making free use of it.

Guaiacol in tuberculosis.—Dr. Sinclair Coghill, of Ventnor, read a paper on 'The Hypodermic Use of Guaiacol in Acute Pulmonary Tuberculosis.' Guaiacol, which is obtained by distillation from creosote, should be administered to the patient by inhalation. His experience with the drug in these cases was most encouraging. When it was given subcutaneously, the buttock was the most favourable region for the injection.

Anarcotine as an antimalarial.—Anarcotine, an alkaloid of opium, has been resuscitated by Sir William Roberts.¹ He stated that by far the most abundant alkaloids of opium are morphine and anarcotine, and while the former represented the anodyne and hypnotic qualities of the drug, the latter represents its antimalarial qualities.

Sir William O'Shaughnessy, in 1838, brought the subject before the Calcutta Medical Society. He gave an account of 32 cases of intermittent and remittent fevers treated with anarcotine. Of these 31 were cured. He also mentioned 100 other cases which had been treated by his pupils and colleagues with equal success.

In 1857-9 Dr. Palmer treated at Ghazipur 546 cases of malarial fever with anarcotine, in doses ranging from 1 to 3 grains. Of these 541 were cured, and only 5 died. In addition to these 546 officially reported cases, he treated with anarcotine a large number of other cases of malarial fever, amounting in all to little short of 1,000 cases. Summing up his general experience he states that in 70 per cent. the fever was arrested at the second paroxysm after the medicine was administered; in 20 per cent. the arrest was equally sure, but was not quite so quick; and in 10 per cent. the medicine did not appear to have any curative effect. He further remarks that there are cases where anarcotine is decidedly more efficacious than quinine—namely, where there is an intolerance of quinine, and where quinine has been given without any effect for a long time.

An oesophageal pouch which simulated stricture was excised by S. J. Mixter, of Boston ('Med. News,' June 15). It was about the size of an egg, and lay to the left and behind the oesophagus. The obstruction to the passage of food was caused by the thin crescentic edge of the spur between the pouch and the oesophagus acting like a valve.

Spontaneous rupture of the non-gravid uterus.—Meinert records two cases of this accident ('Wiener Med. Presse,' June 9, 1895). One was a case of hæmatometra with extreme retroflexion, in the other pyometra existed. Both were cured by operation.

¹ In the address delivered at the opening of the section of Pharmacology and Therapeutics of the British Medical Association.

Ichthyol for phthisis.—Sulpho-ichthyolate of ammonium—a 30 per cent. solution in water, glycerine, or alcohol—in doses amounting to 20 to 200 minims daily, has been given in 150 cases of pulmonary phthisis by Scarpa ('Rif. Med.', March 6, 1895). Twenty-three of the most advanced cases died, but the others were more or less benefited, and 17 appear to have been absolutely cured.

Cocaine for pertussis.—Hydrochlorate of cocaine, in doses varying from 4 milligrammes in infants of eight months of age to 2 centigrammes in children of five or six years (about $\frac{1}{6}$ gr. to $\frac{1}{3}$ gr.) three times per diem, has been administered with very good effect (Wells and Carré, 'Sem. Méd.', June 1895).

Intractable vomiting of pregnancy.—Apply the continuous current, placing the positive pole on the clavicle, between the two branches of the sterno-cleido-mastoid, and the negative pole over the umbilicus. Use a current of ten or fifteen milliampères for from fifteen to thirty minutes. This method succeeded in five cases in which vomiting was so intense as to render provoked abortion almost imperative.—*Gazette des Hôpitaux*.

Cocaine in chloroform narcosis.—Rosenberg, at a recent meeting of the Berlin Medical Society, advised the anaesthetising of the mucous membrane of the nose with a spray of cocaine solution before the administration of chloroform. By this means anaesthesia is more readily induced, and the reflex action on the heart is prevented. Cocaine is an antidote to chloroform, and therefore its absorption would probably lessen the danger of the latter.—*New York Med. Record*, August 24, 1895.

Urinary infection.—A man, aged 70, who had been suffering from glycosuria for some time and who had lately complained of vesical pain and irritation, was examined with a sound. There was no evidence of calculus. A severe rigor occurred some hours later, followed by general symptoms which were attributed to irritation of the urethra. An abscess formed in the perineum, the parts sloughed, and the patient died.

The point of the case, the author thought, was that glycosuria is liable to cause vague urinary symptoms, and that catheterisation in these cases is dangerous.—Bazy ('Arch. gén. de Méd.', June 1895).

Hysterical breast.—A case is recorded of temporary enlargement of the breast and hyperæsthesia of the

skin, more marked during menstruation with hardening of some parts of the gland. The condition was said to be due to a hysterogenous band of hyperæsthesia inducing œdema of the connective tissue of the gland.—Gilles de la Tourette ('Journ. de Méd.', August 10).

Serum treatment of cancer.—A paper giving the details of two cases of malignant growth which were treated by serum were communicated to the Académie des Sciences, April 29, 1895, by MM. Richet and Hericourt.

They obtained the serum from the blood of an ass and two dogs, the animals having previously been injected by a fluid pressed out of an osteo-sarcoma of the leg.

Case 1. Fibro-sarcoma about the size of an orange. After removal this tumour had reappeared four months later. Injections were made into the cellular tissue in the neighbourhood of the tumour, 3 c.c. daily for forty days, the total amount of serum used being 120 c.c. The tumour gradually decreased until it was only just distinguishable.

Case 2. Cancer of the stomach. A large tumour of the size of an orange in epigastric region. The patient was a man aged 44. Improvement in his general condition at once commenced, and his weight increased considerably and the tumour decreased.

An epidemic of the dancing sickness broke out a few weeks ago among the school children of Rehlingen, a village in Germany. During a violent thunder-storm that came on one day while the children were all in school, one of them, a girl twelve years of age, was suddenly seized with a general tremor, and soon after, jumping from her seat, began to dance wildly over the floor. Other girls immediately began to imitate her, and before long there were over thirty of the girls, and seven or eight of the boys, all hysterically dancing around the school-rooms. This was kept up for an hour or two, and was repeated the following day at about the same hour. The schools were then closed for three weeks in order to get the children into a normal state!—*New York Med. Record*, Sept. 7, 1895. [Would not an application of a birch rod or cold water have been effectual in curing this malady?—ED.]

The horse is in luck, for just at the time that his occupation as a drawer is in danger of being lost in

competition with electricity and the bicycle, the anti-toxin treatment has created a demand for him as a purveyor of serum.—*New York Med. Record*, July 20, 1895.

Boots for damp weather.—Every one knows that sitting in damp boots is one very common cause of colds, rheumatism, and intestinal chills. It is not always possible or convenient to change our boots, or even to dry them at the fire, after walking in the wet streets.

Messrs. Medwin & Co., of Sackville Street, are now making boots with india-rubber outside the leather sole.

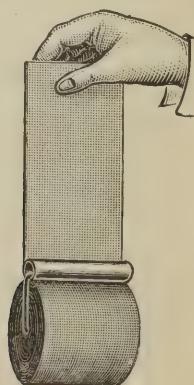
Although india-rubber soles to boots and shoes have been used for some years past for tennis, shooting, and fishing, and especially for deer-stalking, they have not been commonly applied to ordinary walking boots. We understand that one enterprising individual, however, had some boots made in this way for the purpose of acting as an amateur detective at the time of the excitement about 'Jack the Ripper,' and to some extent they are used by the police upon night duty at the present time.

If the rubber is fixed outside a leather sole one-eighth of an inch thick, there need be no fear of any deleterious effect to the feet, as, unlike the golosh, it does not prevent the perspiration from the feet evaporating. There are other advantages attaching to this plan than simply the counteraction to damp, for the rubber sole lessens concussion in walking, prevents slipping, renders the sole of the boot more pliant, and affords considerable comfort to the wearer.

New Apparatus

'NON-RUNAWAY' BANDAGE

DR. ALEXANDER DUKE has devised a very useful contrivance to prevent a bandage suddenly unrolling



itself should it slip from the surgeon's hands during its application. We have tried it, and find it very satisfactory.

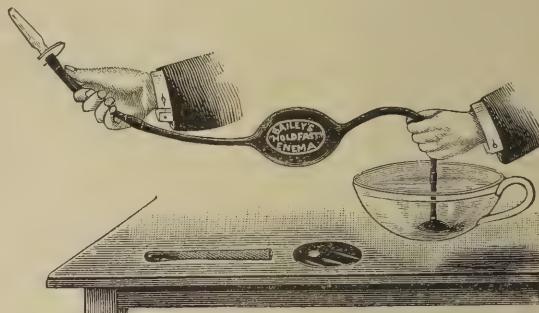
The illustration shows the action better than words. A little cardboard cylinder is attached by an ordinary rubber band to the central space of the roller.

Bandages fitted with this ingenious contrivance are sold by Messrs. Reynolds & Branson, 13 Briggate, Leeds.

BAILEY'S 'HOLDFAST' ENEMA

The illustration of this recent invention almost speaks for itself, and none of us who have ever used a rubber syringe will fail to recognise the advantage of being able to keep the lower end fixed to the bottom of the basin.

This is done on the principle of the street-boy's 'sucker'



—that is, by the production of a vacuum, so that the outside pressure prevents the end from moving.

The inventors have also taken occasion to do away with all metal, so that there is very little to get out of order, and it is also proof against the corroding influence of mercurial solutions.

A PORTABLE SMOKELESS STOVE

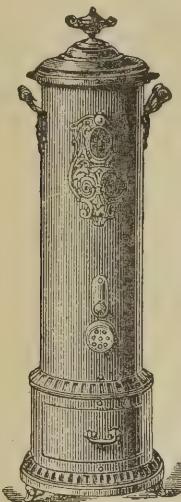
We report upon this stove after giving it a careful trial for over two years. It must be obvious that, whatever stove is used in a room, it is very desirable to carry off the products of combustion by a tube or otherwise; but it not infrequently happens that it is either impossible or very inconvenient to do so.

In very cold weather, such as we had, for instance, last winter, it is often desirable to place an extra stove in a sick room, or even in an ordinary dwelling-room, and it is also an advantage if we can move that stove from one place to another.

Various portable stoves have been invented for such purposes, but in nearly every instance the amount of carbonic acid given off during combustion has been very deleterious in quantity.

Some oil-stoves answer the purpose fairly well, but they are apt to smell if not very carefully attended to.

By far the best stove that we have met with is that of which we give a figure below. The peculiarity is in the fuel, the so-called 'Carbotron Cylinders,' which are chemically prepared charcoal giving off no appreciable smell or deleterious products in a large room or hall.



We have used them in a bedroom of about fifteen feet square in very cold weather without noticing any disagreeable effect. As, however, there must necessarily be some carbonic acid evolved, they are fitted with an opening for a pipe, if it should be convenient to use one. They are made by the Atmospheric Churn Company, Limited, of 119 New Bond Street.

Therapeutics

Therapeutic value of barium salts.—As we have shown in a former issue, the effect of barium salts is not very thoroughly known, for although as a remedy for gout and rheumatism and some allied disorders it has proved of great value as a constituent of a natural water, as at Llangamarch Wells, when given as a separate drug the effects have not been quite so satisfactory.

Some experiments have been tried upon horses which are interesting in the study of this subject. Professor Dieckerhoff refers to the value of barium chloride in cases of colic in the horse, and in the Berlin 'Thierärztliche Wochenschrift' for July 18 he describes his trial of barium nitrate instead of chloride, but as the nitrate is less soluble there seems to be no advantage in using it.

A fatal dose was given to a mare condemned to be

slaughtered for glanders. Two grammes of barium nitrate dissolved in ten grammes of water were injected into the jugular vein. Half a minute later there was great muscular weakness, with an anxious expression in the eyes. The hind legs gave way, and the animal fell on its side. The superficial veins were gorged with blood, and after a few clonic spasms of the extensor muscles, the animal died from asphyxia one and a half minute after the injection.

Post-mortem examination.—Besides the symptoms of glanders, there was much venous engorgement of the organs of the chest and abdomen. The spleen was double its natural size and full of dark-coloured blood.

In another case one gramme of barium chloride in eight of water was injected into the jugular vein. The animal died of suffocation two minutes after the injection. It was evident that in a case where the heart's action was very weak, as in this instance, an ordinary dose suited to a case where the heart was healthy acted as a poison.

The account in the 'Veterinarian' of these experiments continues as follows:—

'From such experiences it is evident that in cases of colic where the pulsation is more than 70 per minute and weak, half the ordinary dose of barium chloride should be administered as a venous injection—viz. half a gramme for heavy horses and a third of a gramme for ponies—and if there is much weakness even smaller doses should be administered.

'The advantage which the intravenous injection of barium chloride possesses over other medicines for causing peristalsis is that it acts over the whole length of the intestine, and is longer maintained, and it has shown itself to be the most active of all such reagents. The greatest danger in colic is caused by the accumulation of gases in the intestines due to fermentation, and a medicine that can rapidly cause its disgorgement is of the greatest value.

'In administering barium chloride by intravenous injection in the right or left jugular vein the horse's head should be held high, and the operation is easily and safely performed from below upwards. For the purpose a cannula of proper width with a convex-formed point is most suitable, such as is supplied by Hauptner, instrument maker, Berlin. With a little practice, the operation is as easy as that of subcutaneous injection. Barium chloride is neutral in its reaction, and causes no inflammation at the seat of puncture. A convenient way to employ it is to have small glass tubes made of about 10 c.c. capacity. Into these the proper dose of barium chloride is put, and kept dry until wanted. When wanted, all that is necessary is to fill the tube with water, and when all is dissolved, which will occur in about a minute, pour it out into a shallow dish and suck it up with the syringe.'

Two cases are then recorded to show the effect of barium chloride in cases of colic, the results of which were satisfactory.

The Japanese as pharmacologists.—The energy of the Japanese is showing itself in various ways, and we are now presented with a new remedy which has been prepared by a process based upon the investigations of a very experienced Japanese chemist, and is obtained by the cultivation of a fungous growth on wheat bran, the method being similar to malting. From the cultivated fungus an extract is produced, and the exceedingly powerful diastase separated by subsequent manipulation.

Messrs. Parke, Davis, & Co. are introducing this remedy, which is called Taka-Diastase. It is a diastatic ferment, in dry and concentrated form, which the vendors say should prove an efficacious means of combating amylaceous dyspepsia. Further, they aver that it possesses an unheard-of amylolytic power, being capable of converting not less than 100 times its weight of dry starch into sugar under proper conditions.

This promises to be a very valuable remedy, and well worth an extended trial, and we are having experiments carried out to test the above statements.

Veterinary Notes

PREVENTION OF TUBERCULOSIS BY THE USE OF INDIVIDUAL STALLS¹

By GEORGE N. KINNELL, M.R.C.V.S., Pittsfield, Mass., U.S.A.

THE subject to which Mr. Kinnell calls attention seems to us to be of great importance. After urging the necessity for taking measures to eradicate tuberculosis from herds of cattle, he refers to three essential points which, he maintains, ought to be kept in mind.

(1) That we should have reliable facilities for recognizing the disease.

(2) That we should have the power to slaughter diseased animals when discovered.

(3) That we should eradicate those conditions which make tuberculosis possible, or their continuance a certainty.

In respect of No. 1, the means of diagnosis are probably almost perfect—that is to say, by the use of tuberculin, the test being harmless to healthy animals, but very exact in respect to diseased ones.

As regards No. 2, the power of slaughter we already have.

In discussing the subject of No. 3, Mr. Kinnell remarks:

'Of all the various much-talked-of causes of tuberculosis, whether they be heredity predisposition, system of breeding, heavy feeding, forced milking, filth, bad drainage, or any of the many which can be mentioned, there is not, to my mind, one, or half-a-dozen put together, which in

any way approach in harmfulness the injury which is caused by the almost universal system which obtains in the arrangement of the ordinary cow stall. It would baffle the ingenuity of man to contrive a system which would be better calculated to insure the spreading of a contagious pulmonary disease. There the creatures stand, shackled side by side and cheek to cheek, anchored to one spot week in week out, month after month, breathing and rebreathing the same air, coughing and expectorating into each other's faces. What wonder that we have tuberculosis in our herds, and what marvel that it spreads?

'It has been proved time and again that once the disease gains a foothold in a herd it will progress as rapidly in the cleanest and best ventilated barns as it will in the dirtiest and least cared for. I do not wish to be understood as decrying the necessity for cleanliness and ample cubic space, but I do claim that their importance is altogether secondary to another requirement which is hardly ever observed, viz. the necessity of to some extent isolating the individuals of a herd from each other.

'It is a common saying that tuberculosis is a highly contagious disease. I question the statement very much. My experience leads me to believe that its range of infection is very limited indeed, probably not more than a few feet at the most. For instance, the spread of the disease among animals kept out of doors is practically unknown, or, in other words, diseased and healthy animals can herd together in the same pasture with comparative impunity, and therefore the author urges that his suggestion, if acted upon, would go a long way towards preventing the spread of tuberculosis.

There is much more in the article referred to which is of value, but the above gives sufficient indication of the contentions of the author.

In relation to this subject, public attention may be directed to the important experiments made in Denmark. Two hundred and eight apparently healthy cattle were injected with tuberculin; 80 per cent. of the cows and 40 per cent. of the cattle showed a marked reaction, and, presumably, were tuberculous. The healthy were separated from the diseased, and the calves fed only on boiled milk. During the first year after this separation, on injecting 107 cattle, the proportion which reacted sank to 10 per cent. In the second year, out of 122 cattle only two reacted. It would, therefore, seem that it is practicable to reduce within insignificant proportions the number of tuberculous cattle by separation of the sick from the healthy, and feeding on a pure non-infective diet.

Tubercular animal food.—The vexed question as to whether tuberculosis is propagated by the use of tubercular animal food would receive some elucidation

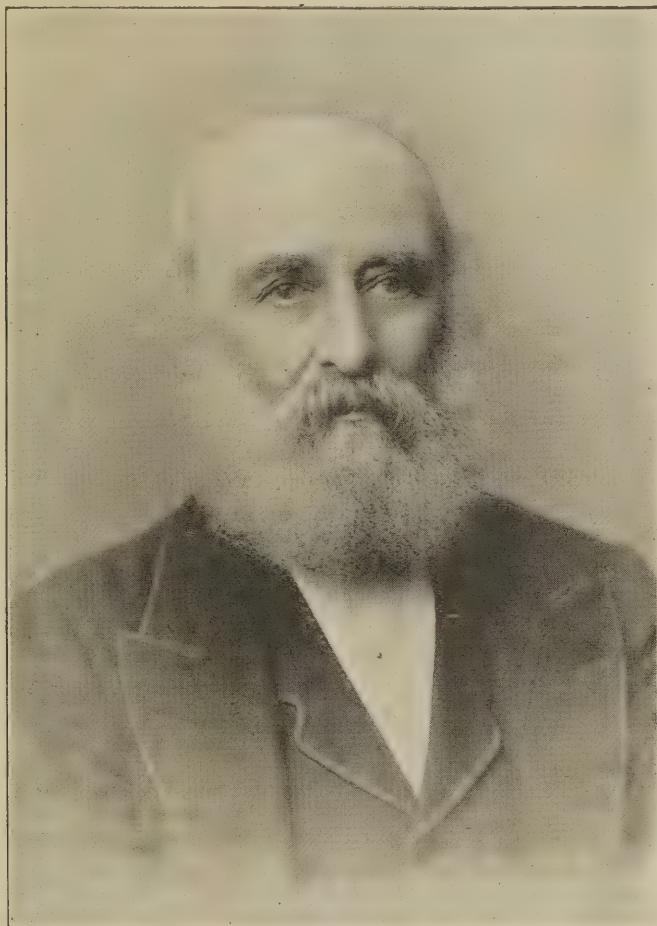
¹ The Veterinarian, September 1895.

if we had in our own country trustworthy statistics as to the increase or decrease of bovine tubercle in particular years. Willbrandt¹ has given some useful figures for Schwerin. In the years 1886-89 the number of tuberculous cattle slaughtered varied from

¹ *Zeitschr. Hy. f. Fleisch- u. Milchg. Jg. v. H. 1.*

10.7 to 12.35 per cent.; it increased during the years 1890-93 from 15.7 to 26.6 per cent. In the first half of 1894 the percentage rose to 35. Possibly the bad season of 1893 had something to do with the increase, by diminishing the resisting power of the tissues against infection.

JOHN SYER BRISTOWE, M.D., F.R.C.P. LOND., M.R.C.S. ENG., LL.D. EDIN., F.R.S.



His colleagues, his old pupils, his patients, and his friends have to deplore, in conjunction with his relatives, the loss of this amiable and eminent physician. Born 1827, he died August 1895; was Senior Censor of the College of Physicians in 1889, and Physician to St. Thomas's Hospital from 1846 to the time of his death. Formerly President of the Medical Society of London, the Pathological Society, the Neurological Society, and the Hospitals Association; Vice-President of the Sani-

tary Protection Association; Consulting Physician to the West End Hospital for Diseases of the Nervous System and the Victoria Hospital for Children. He was the author of 'The Theory and Practice of Medicine,' first published in the year 1876, which passed through seven editions; 'The Voice and Speech' (Luml. Lecture); 'Clinical Lectures and Essays on Diseases of the Nervous System,' and many other works and papers.

Reviews

Archbold's Lunacy. Fourth Edition. By S. G. LUSHINGTON, M.A., B.C.L. 1895. Demy 8vo. pp. 1166. 42s. (London : Shaw & Sons.)

To those who wish to consult or study the lunacy laws, this volume is of great value.

It is the fourth edition, and comprises the Lunacy Acts 1890 and 1891, the Lancashire County (Lunatic Asylums and other Powers) Act, 1891, and all the statutory rules, orders, and forms in force thereunder ; also the statutes relating to criminal lunatics, the Lunacy (Vacating of Seats) Act, 1886, and the Idiots Act, 1886.

The usefulness of this book is much increased by the many aids which are given to the reader to enable him to understand the gist of the various acts. Explanations of obscure paragraphs, references, and definitions of legal phrases, and other similar methods of facilitating the labour of those who consult this volume, are furnished.

The Insane and the Law : a Plain Guide for Medical Men, Solicitors, and others. By G. PITTS-LEWIS, Q.C., R. PERCY SMITH, M.D., F.R.C.P., and J. A. HAWKE, B.A. 1895. Demy 8vo. pp. 448, 14s. (London : J. & A. Churchill.)

This work is divided into the following parts : (1) Detention and Treatment ; (2) Maintenance ; (3) Responsibility ; (4) Capacity ; and in the form of appendices are given the Regulations of the Board of Visitors, the Lunacy Acts of 1890 and 1891, the Idiots Act, and the Rules of the Commissioners in Lunacy.

Both the authors are well known to be thoroughly reliable men in their own departments. Mr. Pitt-Lewis has devoted a considerable amount of study to this subject, a fact which was shown by the part he took in a discussion at the 1894 annual meeting of the British Medical Association ; and Dr. R. Percy Smith's previous experience as Resident Physician and Medical Superintendent to Bethlehem Royal Hospital and his various contributions to the literature of insanity and lunacy are ample testimony to his ability.

We can confidently recommend this work as a useful and reliable guide to the general practitioner.

Diseases of the Spinal Cord. Third Edition. By BYROM BRAMWELL, M.D., F.R.C.P.Ed., F.R.S.Ed. 1895. (Edinburgh : William F. Clay.)

This edition has been thoroughly revised and brought up to date. The book has, in fact, been entirely rewritten, and many new illustrations added. Dr. Bramwell is a most painstaking writer, and his style is very attractive. He thoroughly recognises the value of illustration to

convey the information he wishes to impart, and considers that the one great secret of all successful teaching is to teach the eye as well as the ear.

His diagrams representing the anatomy, physiology, and pathology of the spinal cord are typical of the style of the whole work. The author has for many years been collecting microscopic specimens to show the normal anatomy and pathology of infantile paralysis, or rather what is now more scientifically named poliomyelitis anterior acuta, and in accordance with our custom we will take this subject for an example. Dr. Bramwell carefully avoids speculative theories, intending his book essentially for students. In dealing with the etiology of poliomyelitis anterior acuta, which must still be considered obscure, he states his opinion that the symptoms are highly suggestive of the disease being a febrile one, due to a definite toxic cause rather than a mere local inflammation. The following are the facts upon which he advances this opinion : (1) the age at which the disease occurs ; (2) the extreme rarity of second attacks ; (3) the greater frequency of the disease during hot than during cold weather ; (4) the occasional occurrence of 'runs of cases ;' epidemics of poliomyelitis anterior acuta have indeed been described, but, so far as he knows, the disease is never infectious or contagious ; (5) the fact that the fever and constitutional symptoms which usher in the attack are in many cases more marked than one would expect from the severity of the local lesion.

Dr. Bramwell thinks it highly probable that future observations will demonstrate the presence of some specific irritant, perhaps a micro-organism or the products of a micro-organism.

In referring to the arrest of development of a limb paralysed from this disease, he describes the want of growth of the bones, a fact which shows, he thinks, that they as well as the muscles are nourished by the multipolar nerve cells in the anterior cornua of the spinal cord, or at all events that the trophic nerves for the bones pass through the anterior cornua.

Under 'Treatment' the author advises measures, in the first instance, to subdue the inflammation. He refers to the difficulty or impossibility of keeping young children in the prone position with the object of relieving the cord from congestion. We therefore doubt if he is acquainted with the prone couch made in accordance with Verral's original pattern. Those usually constructed at the present day by invalid furniture makers are quite of another shape, and fail to give a child the comfort which the former always affords.

The subsequent treatment after subsidence of inflammatory symptoms is very thoroughly and practically dealt with.

As regards the whole book, we may say that it maintains the author's high reputation as a teacher, a writer, and as a sound practitioner.

CLINICAL SKETCHES

NOVEMBER 1895

Antirabic Serum

In this age of serum therapeutics it is not surprising to find that the principle has been further elaborated in the treatment of rabies.

In three voluminous articles in the 'Lancet,' published during September, have appeared the details of experiments, prosecuted on behalf of that journal, regarding the preparation of an antirabic serum, and the method of determining its strength. These experiments have been made by Professor Guy Tizzoni and Dr. Eugene Centinni. The record of their work is very clearly given, and the deductions are reasonable. We only propose to give a summary of that part which concerns the application of this treatment to human beings.

It seems as if this serum treatment for rabies is very likely to completely take the place of Pasteur's vaccination process.

The researches which have led up to this result have occupied six years of laboratory work.

In comparing the experiments with those of Pasteur, it has been proved that with the serum it is easy to protect rabbits, the protection of these animals being very difficult by Pasteur's method. A single injection of serum, made twenty-four hours before the subdural infection, suffices to make the rabbit immune from the virus of rabies, while by the older method many days and many injections are necessary for the same purpose. One injection will save the rabbit, although only applied at an advanced stage of incubation of the rabies. Pasteur's method has never succeeded under these conditions.

Pasteur's method was applied to man upon the basis of experience gained by experiments upon animals, and therefore it is only logical to do the same with the serum.

VOL. II.—No. 11

The practical advantages of the serum treatment over Pasteur's method.—It is claimed for the serum treatment that it is more efficacious and far more convenient. It is more efficacious on account of the property of the serum in acting rapidly, for, being the final product of the vaccine from which it proceeds, it has no need for a long period of preparation within the patient. The advantage of such an immediate action is obvious. It is assumed that usually only a very small amount of virus is inoculated by the bite of a rabid animal, because so many people recover after being bitten without contracting rabies, and upon the knowledge that during the period of incubation a certain multiplication of the virus that has been absorbed takes place.

An animal injected with serum becomes protected within a few minutes, whereas in vaccination the protective effect depends upon an incubation period, and therefore is slow. It is this slowness of method which prevents any certainty as regards Pasteur's treatment. Fifteen days have to pass before Pasteur's treatment comes to an end, so that, calculating twenty or thirty days as the mean duration of the vaccination, we have to wait from thirty-five to forty-five days before a cure can be declared.

It is, above all, claimed for the serum treatment that it is immensely superior to vaccination in cases where the rabies is in an advanced period of incubation, or when we are treating a deep bite made in the course of large nerve trunks, and in the neighbourhood of the brain. This latter condition is especially applicable to wolf bites.

As to convenience, it is apparent that the serum treatment is likely to be much more useful for rapid and general application. The preparation of serum is

preserved in a dry form not injurious to handle, and therefore can be sent anywhere and be applied by all medical men by subcutaneous injection. The complete absence of any virulence whatever in the serum preparation not only assists its use by less expert hands, but overcomes the reluctance which many feel to having themselves injected subcutaneously with a great and increasing quantity of fixed virus, although such fear may be unfounded.

The injection of the serum produces but slight irritation, and is not followed by the local symptoms of Pasteur's numerous and abundant injections.

The dose and manner of application for human beings.

It has been found that in animals a given quantity of serum neutralises a given quantity of virus deposited in the wound from the bite of a rabid animal. In man the amount to be neutralised probably 'approaches nearly always to the minimal lethal dose,' and as rabies can be cured at the first moment of the period of incubation, and as the experiments have shown that there is no great increase in the multiplication of the virus during the first half of the period of incubation, it is presumable that the dose which will act in the first instance—that is, a minimum dose for a minimum lethal amount of virus—will be efficacious during the first four days.

The experiments show that the preventive dose is of the strength of 1 in 25,000—that is, 0·04 c.c. per kilogramme of the weight of the animal; but as to the curative dose up to the fourth day of infection it rose to 1 in 4,000—that is, six times the preventive dose—corresponding to 0·30 c.c. of typical serum per kilogramme. Applying this calculation to man, and calculating upon a mean weight of the body of 70 kilogrammes, it is found that the curative dose after a sudden bite corresponds to 20 c.c. of the typical serum, being equal to from 2 to 5 grammes of the dried product.

It is suggested that a protective unit should be adopted, and in order to treat rabies a little while after the bite, 25,000 protective units are necessary.

The manner of injection.—It is thought that it will be convenient to divide the dose of injection, in the belief that the too sudden accumulation, of a foreign material in the blood may favour elimination, and hence the loss of active material.

At the conclusion of the article in the '*Lancet*'

for September 28 it is further stated, 'We advise, therefore, the division of the strongest dose into three injections, the first to be made at once, injecting half of the dose above determined, and the rest divided into two equal doses at intervals of three days, so that the whole treatment is completed in the course of a week. We should always keep before us the fact that the dose is relative to the period at which one begins to treat and to the power of the infection; therefore, the dose given is of value, as regards a bite of mean gravity, for treatment undertaken during the first four days after the infection, and we hold that, with the practical facilities which serum treatment offers in rabies, such a period of time ought never to be exceeded.'

'From the fourth to the fifteenth day after the bite we advise that the dose of serum should be doubled, the same order in making the injection being still followed. We hold that this doubling of the dose is essential. We also hold that the dose should be a bold one in the case of more extensive and deeper bites, or such as are made in proximity to the nervous centres, especially those on the face.'

NOTES BY THE EDITOR

THE rapid advance of cycling as a method of locomotion is leading to increased danger in the streets of towns and cities. This, in addition to the previous crowd in London streets, must surely lead to some modification of the traffic before long. It is often better to walk than to ride if one is in a hurry, only that the chances of being run over in crossing the streets is now much greater than formerly, and especially on account of bicycles. It is a question whether cycling should be permitted at all in the more crowded London thoroughfares.

It has long been a subject of controversy as to which is the best material for roads in London. Asphalte is certainly the most cleanly and the most even.

The drawback to the use of asphalte is its slipperiness. There is more suffering caused to horses when they are on the asphalte than under almost any other circumstances of ordinary use. The efforts on the part of the poor beasts to keep themselves from falling is not only productive of suffering and

exhaustion, but also of serious strains and more severe injuries.

People who use many horses in London, such as jobmasters, aver that although horses are very apt to fall on asphalte, they seldom do themselves much injury, but it is the constant straining to keep up which does harm.

The owner of a carriage who goes much on the asphalte suffers chiefly from having to pay for broken shafts or similar damages.

The abolition of horses as drawers of carts and carriages in London and other large towns, and the introduction of electricity or petroleum as a motor power, and the use of cycle carriages worked by attendants, will perhaps some day solve both the questions of sanitation and of cruelty to horses, while it will also, probably, considerably lessen the cost of conveyance.

The owner of a petroleum carriage was recently fined for contravening the Act of Parliament regarding these vehicles, and it seems to me a very unreasonable course to take while the authorities allow what I saw in a crowded part of Oxford Street on the night of the first of November.

A gigantic traction-engine was puffing loud enough to be heard nearly half a mile off, and belching forth volumes of smoke and sparks, dragging behind it six four-wheeled vans of goods.

It was quite a weird sight to see this monstrous train passing along a main thoroughfare, with horses starting and breaking into gallops in all directions. This was at ten o'clock at night, and the sight was so curious and so extraordinary that it resembled a nightmare more than a real fact.

I assume that this extraordinary procession must be legal, whereas a petroleum propelled dog-cart, which would probably interfere with no one's comfort, is prohibited.

I recently had a very interesting conversation with Surgeon H. Usui, of the Imperial Japanese Navy. He served through the recent war, and was present in the chief engagements. The gunboat to which he was attached was the 'Akagi,' and when an order was given for the line-of-battle-ships to proceed in a certain direction at full speed, this small gunboat was unable to keep up the pace, and was consequently surrounded by the Chinese vessels.

All the officers were rapidly killed by the Chinese fire, with the exception of one young lieutenant, and

the vessel would probably have been captured or sunk had not the crew pluckily stuck to their guns and at last succeeded in setting fire to one of the Chinese ships, when the gunboat escaped in the confusion.

This is only one more evidence of the pluck and determination of the Japanese, of which we have had so many recent examples, and I am assured by Surgeon Usui that the energy and power of physical endurance of the Japanese Navy and Army have enormously increased since they introduced meat into the dietary of the ranks. This took place eleven years ago, and the disease called Tak'ke, from which Japan suffers so greatly, has been eradicated from the Navy as a result, apparently, of this improvement in the diet of the men.

Surgeon Usui speaks English well, and there can be no doubt that he is looked upon with considerable favour by his Government, they having sent him over to England for three years' study at our hospitals.

Speaking of the artistic qualities of the Japanese, Surgeon Usui remarked that it was probably greatly due to the early teaching which they receive. All their writing is done with the brush, and the formation of a sentence in the shape of a symbol calls forth artistic handcraft which rapidly develops into more general application.

For many years the 'Provincial Medical Journal' has been most ably edited by Dr. Dolan, of Halifax, and I much regret to find that it is about to be discontinued; but my regret is, perhaps, uncalled for, as there can be no doubt that the new Journal which Dr. Dolan proposes to establish on his own account, and on similar lines to the one he has so long conducted, will meet with support not only from those who have hitherto subscribed to the 'Provincial Medical Journal,' but from others.

There seems good reason to suppose that 'The Scalpel'—which is the name Dr. Dolan proposes to give to this new venture—will be eminently successful.

Yet another new journal is promised us. An English edition of the 'Archives of Pædiatrics,' which has been so well conducted by Dr. Dillon Brown in America, will make its first appearance in January next. It will be edited by Dr. George Carpenter.

Original Papers

CASE OF MELASMA TREATED BY SUPRA-RENAL GLAND EXTRACT

WITH EVIDENCE OF GREAT IMPROVEMENT

By A. ERNEST SANSOM, M.D., F.R.C.P.

Physician to the London Hospital

G. W., aged 25, farm labourer, was admitted July 25, 1895, into the London Hospital complaining of great weakness, constant frontal headache, noises in the ears, and occasional nausea and vomiting.

His family history was unimportant; no history of phthisis could be obtained.

Present illness.—He stated that until twelve months ago he had always been quite healthy; he had been

ting tired. Seven months ago he first noticed some brownish colouration of the skin of the face.

His recollection as to time of onset of other symptoms seemed very hazy.

Condition on admission.—Fairly nourished, hardly looks his age, face round; he has rather a boyish appearance. Anæmic, apathetic, lying in bed for the most part with closed eyes, taking very little notice of those around him. Complains of much nausea, but no actual vomiting.

Over the face are several areas of pigmentation, light bronze in colour, irregular, varying in size up to two square inches; these patches are not well defined. Scattered irregularly over them and the whole face are numerous spots of dark sepia-coloured pigmentation varying in size up to $\frac{1}{6}$ inch in diameter. The smaller patches much resemble freckles. (Note that the



FIG. 1



FIG. 2

employed as a farm labourer for the last three years. 'About a year ago,' he said, 'he first "began to feel a bit queer,"' and found he could not walk far without get-

patient has been indoors now for some months.) There is a dark line on the lips where they come in contact. No patches on mucous membranes, mouth, or tongue.

Over inner surface of both knees are patches of bronzy pigmentation, well defined, reticulated in arrangement. Both forearms show numerous dark sepia spots up to $\frac{1}{4}$ inch diameter. Nipples manifest a little abnormal pigmentation. Patient has night sweats, and complains of giddiness and dyspnoea on any exertion.

Skin quite smooth and soft everywhere, even over pigmented areas; no itching, no enlarged glands. Digestive system normal, except for some constipation. Spleen not felt to be enlarged.

Pulse 84, fair volume, tension low. Sphygmograph indicates sudden contraction of the ventricle with considerable dicrotism, volume considerable. Heart normal; slight systolic murmur in the second interspace.

No physical signs in lungs.



FIG. 3

Complains of feeling 'pins and needles' in legs at times. Sensation normal. Kneejerks and plantar reflexes easily obtained. Optic discs, &c., normal. Urine acid, amber, S.G. 1033; no sugar, faint trace of albumen.

Blood examined showed some deficiency of red corpuscles, 75 per cent. of the normal; white corpuscles about normal; no marked alterations in shape, &c. Temperature, 100° on admission; usually normal, occasionally rose to 99°·5, never higher.

Treatment and progress.—On admission patient weighed 8 st. 6 lb.; he was passing about 50 oz. of urine daily. He was given a mixture containing citrate of iron and strychnine, and afterwards small doses of arsenic. After two weeks of this treatment he had lost 1½ lb. in weight; his headache was constant and, if anything, worse.

At the beginning of August treatment by tabloids of suprarenal gland was begun, antipyrin, phenacetin, cannabis indica all having failed to relieve the constant headache. After taking the suprarenal tabloids for a month (at first one, and then two three times a day) he had gained fourteen pounds in weight, the headache was much better, and he was eating well and was able to take walking exercise in the garden every day.

At the end of September he was sent to the country for three weeks, and the tabloids were stopped.

When seen again, October 20, the red corpuscles were normal in number, and haemoglobin was present in about the normal amount. Still headache at times, but patient much stronger and able to do some light work.

The spleen was just felt below the ribs: the original patches of pigmentation on face, legs, &c., were certainly much less marked, though still present. Pulse tension markedly improved; no vomiting or nausea.

Remarks.—I considered this to be a case of Addison's disease, though it had some atypical characters. The usual faintnesses were not present, and the anaemia was more apparent than real; the pulse was not of small volume. The pigmentations were observed over large areas of the skin, and generally closely resembled those of Addison's disease. The backs of the hands, the scrotum, and the axillæ were not specially pigmented, as in typical cases. The dark sepia spots mentioned are often present in Morbus Addisoni. The subjective symptoms were severe and distressing. Preliminary treatment having been ineffectual, I decided to try the administration of the suprarenal gland. The extraordinary improvement and rapid gain of weight suggest the relation of cause and effect. It must not be forgotten that there are sometimes partial recoveries in the natural course of the disease. I hope, however, to watch the case at intervals.

A FEW REMARKS ON CHOLERA

By A. WYNTER BLYTH

Medical Officer of Health for Marylebone

The recently published supplement to the annual report of the Local Government Board contains an excellent summary by Dr. Barry of the rerudescence of cholera in Germany during the winter of 1892-3.

The Hamburg epidemic commencing in August had ended by the middle of November, after attacking 18,500 persons and killing 9,500, but it again appeared in the winter, in three different places, at three different times.

One outbreak was at Hamburg, December 5, 1892, to March 3, 1893; another was at Altona, December 23, 1892, to February 12, 1893; a third in a lunatic asylum near Halle, January 14, 1893, to February 13, 1893. Both the Altona and the lunatic

asylum outbreaks were proved to be from specifically polluted water, while that at Hamburg is ascribed mainly to infection from person to person.

The appearance of this interesting report suggests some observations on the subject generally, more especially on the attitude that the health authorities in this country ought to take.

It is a matter of sincere congratulation that, notwithstanding the facility of modern transport, there has been no serious implantation of cholera in this country during the present year. At the same time the history plainly shows that severe frost or long-continued cold weather is absolutely insufficient to protect us, and that we shall for many a year, and at all times of the year, be in danger of an importation which, under certain favouring circumstances, may be serious in its results.

The characteristic feature of the 'cholera aftermath' in Hamburg, mainly propagated as before mentioned by personal contact, was that the patients belonged, without exception, to the lowest stratum of the population. 'They were people without work and without homes, drunkards living in common lodging-houses and spirit shops, itinerant hawkers who sold matches, sausages, or the like, and whose trade led them into such haunts.'

Here, then, was the very class which is to be found in the 'shelters' of our Metropolis—shelters, it must be remembered, on a far larger scale than in Hamburg, shelters chronically crowded, and which, as the history of the diffusion of small-pox has conclusively shown, are peculiarly adapted to propagate any malady which it is possible to propagate by personal contiguity. This, therefore, is to my mind an additional argument, if one were needed, to place such institutions under more strict regulations as to floor and cubic space, and to the enforcement of a minimum amount of personal cleanliness.

It has been suggested that flies were, to a small extent, the carriers of the infectious matter in the Hamburg summer epidemic, and this suspicion is probably well grounded, although it could not have had any influence on the winter outbreak. Both reason and observation show that the common fly does convey infective matter. The history of isolated attacks of anthrax, the discovery of tubercle bacilli in the bodies of flies inhabiting rooms of persons dying of phthisis, the minute spots on every mirror of a fly-infested room, and, lastly, the experiment of allowing flies to walk over cultures of chromogenic micro-organisms, with the result of promptly infecting

sterile cultures in the same room with the same organism, all show that in presence of cholera it is essential that all food should be protected from fly contamination (as well, indeed, as from other insects).

It is, however, to water that attention must be chiefly directed. We are not likely to know the full damage which the frost of 1894-5 has caused to water mains and service pipes. It is quite true that by this time the majority of large leaks will have been discovered and rectified, but one cannot help suspecting that there exist cracks in the water mains here and there, the leak not showing itself on the surface of the ground, but passing into the adjacent sewers. With regard to the metropolitan water supply, a considerable number of analyses are made month by month and week by week by various analysts, some acting as chemists to the companies, others in the employ of local authorities. These analyses often reveal a marked want of agreement, even when samples are taken on the same dates from different points, and we do not know whether the cause is divergence of process, inaccuracy of manipulation, or, what to the consumer is of much more importance, actual differences in composition of the same water in the different points of its course. It would be preferable to adopt in the supervision of the metropolitan water supply an entirely different method of procedure, and to methodically month by month take samples from a variety of the mains and subsidiary conduits at the same moment of time at different points, and rely not upon a superabundance of tests, but on those capable of great accuracy, such as oxygen consumed, chlorine and free ammonia; tests that will not take long for two or three determinations to be made, each quantitative result being carried out with the utmost care, so as to get comparative results along certain lines of pipes. From my own experience I am certain that such an inquiry would reveal here and there differences owing to strictly local defects all requiring to be remedied.

The laborious survey of the medical officers of the Local Government Board on the sanitary condition of the country has, to my mind, proved that, so far as the country generally is concerned, we are not prepared for cholera, and should it become epidemic in any of the large population centres, the local sanitary authorities will have as great a task before them as they had in 1866.

Modern research has, for instance, shown that cases of cholera after recovery excrete the comma bacillus for many days. Without pronouncing an

opinion as to whether the comma is a cause or an effect, its existence in the living intestine is most assuredly a sign that the person is likely to be dangerous to the community. Hence it follows that every case of cholera should be treated in a hospital or place where there are proper appliances to destroy the excreta, and where the sufferer can be detained until a bacterioscopic observation has shown that he is free from infection. Few local authorities have sufficient hospital provision for the common infectious diseases, still less for the treatment of cholera cases.

When cholera was anticipated in 1893 a good many local authorities drew up a scheme for action; in the metropolis a certain number of beds were reserved, and an ambulance service was organised. Since cholera in an epidemic form did not appear, this wise organisation lapsed, and at the present time, should cholera suddenly invade the community, few health officers, save those of certain of our ports, would have any facilities for dealing with the emergency. It may be answered that the Local Government Board will step in and give large powers to local authorities. No doubt this is so, but the slow mechanism of any central authority is not favourable to the prompt action which would be necessary to grapple with cholera. It is the precautions and arrangements which are taken in the first twenty-four hours which are the most likely to be of use, and it would be far more effective if each sanitary board were compelled to draw up a scheme of action in its own district, and have it confirmed or amended by a competent authority. A scheme thus sanctioned could then be placed in the hands of each health officer to carry out—that is to say, that officer would have to act on definite lines laid down in calm, non-epidemic times, and be able to do so at once without waiting or having to consult with his board.

NOTES AND SKETCHES MADE DURING A TOUR THROUGH GREAT BRITAIN

By ALFRED HAVILAND

Author of the 'Geographical Distribution of Disease in Great Britain,' Late Lecturer on the Geography of Disease at St. Thomas's Hospital, London, S.E., &c.

III.—THE TWO CHALK BELTS OF THE THAMES AND THEIR INFLUENCE ON THE MORTALITY FROM CANCER

PART I

Before discussing the immediate subject of this article it will be well to give an outline of the general

arrangement of the Registration Districts in the Thames Basin.

The rim, or great water-parting, which encircles the most important and one of the most beautiful valleys in the world embraces *ninety* extra-metropolitan districts, of which *forty* lie on the *left* bank, or northern side of the river; and *fifty* on its *right*, or southern bank. These districts may again be divided into (*a*) *Riparial*, (*b*) *Supra-riparial*, and (*c*) *Fontal*, or those containing the *sources* of the Thames and its tributaries.

The *Riparial* districts are those which immediately skirt the river or are traversed by its head-waters; the *Supra-riparial* are those which lie between the first division (*a*) and the third (*c*), containing the sources of the river and its tributaries. In the present note we shall confine ourselves to the first division, the *Riparial*, giving a short sketch of the geology, physical geography, and mortality from cancer among females in those Registration Districts, so that when the two belts of chalk shall be discussed, the significance of their relation to the death-rates from the above cause may be better understood.

In a future note I hope to describe how the *Riparial*, *Supra-riparial*, and *Fontal* districts differ as regards their death-rates from cancer; how the first, the most subject to floods, have the highest death-rates, the last or least flooded the lowest, and the *supra-riparial* a mortality intermediate between the two extremes.

The geology of the Riparial districts.—The geology of the Thames Basin and of London has been carefully studied and accurately described in clear and distinct language by Mr. William Whitaker, B.A., F.R.S.,¹ who is our principal authority on the geology of this and many other parts of England; and as I have his kind permission to make use of his works I shall, in the second part of this note, quote him freely.

General description.—If we examine a map of England and Wales geologically coloured, we shall find that certain formations stretch from the south-west to the north-east of England in almost regular sequence;

¹ *London and Neighbourhood, Guide to the Geology of*, by William Whitaker, B.A., F.R.S., F.G.S., 5th edition, wrapper, 1889, 1s. *London and Part of the Thames Valley, The Geology of*, by the same author. Vol. I.: Descriptive Geology; 8vo., 568 pp. 105 illustrations, 1889, 6s. Vol. II.: Appendices; well sections, borings; 8vo. pp. 356, 3 illustrations, cloth, 1889, 5s.

The above memoirs are sold for the Geological Survey of Great Britain by Eyre & Spottiswoode, London; John Menzies & Co., Edinburgh and Glasgow; and Hodges, Figgis & Co., Dublin.

'The Geology of the Valley of the Thames' in *Dickens's Dictionary of the Thames*, 1890, pp. 71-77, is by the same author. London Dickens & Evans, Bride Street, E.C.

and if the course of the Thames from Gloucestershire to the sea be traced, we shall further find that it crosses these formations successively from the north-west to the south-east and east. We will now describe generally, beginning with the oldest and most westerly, the courses of these formations.

I. *The Lias*.—This formation, consisting of lower lias, clay and limestone, marlstone, and upper lias clay, may be said to extend from Lyme Regis (S.W.) to the right bank of the mouth of the Tees, at Redcar and Saltburn (N.E.). It comes into relation with the Thames in the Stow-on-the-Wold district.

II. *The Oolite* lies to the S.E. of the *Lias*, stretches from Portland Bill (S.W.) to the Yorkshire Moors of the North Riding (N.E.). This formation at different parts of its course consists of limestones and clays and sands; for instance, among the first are the Inferior Oolite and sand, Stonesfield slate, Bath or great oolite, forest marble and cornbrash; then we find the Oxford clay lying between the last formation and the coral rag, which is separated from the Portland oolite and sand by Kimmeridge clay. The Thames rises in the Oolite of Gloucestershire at the Seven Wells, and cuts this formation almost at right angles, flowing successively over its limestones and clays.

III. *The Cretaceous* formations, consisting of Atherfield clay, Lower Greensand, Gault clay, Upper Greensand and chalk, stretch from the South of Dorsetshire (S.W.) to the north coast of Norfolk (N.E.), where their course is interrupted by the Wash; it is, however, continued into Lincolnshire and Yorkshire, forming *The Wolds*. In Wiltshire the chalk forms an irregular trident, one division of which has just been followed; the central one extends to the North and South Forelands, through Hants, Surrey, and Kent, forming the North Downs; whilst the most southern takes a south-easterly direction through Hants and Sussex to Beachy Head.

IV. Lastly, the *London Clay*. This forms a triangular mass lying between the two upper divisions of the chalk trident; between the London clay, however, and the chalk are found, irregularly distributed, what are known as the Lower London Tertiaries—the Woolwich and Reading beds and Thanet sand; they are most important formations from a medical point of view, and will be again discussed. Above the London clay are the Lower Bagshot beds, as on Hampstead Hill; and the more recently deposited gravels and brick earth of the Thames Valley, which again are surmounted in some places by the still more recent alluvium.

Such is a general outline of the different formations through which the Thames has cut its way from the N.W. to the S.E. In Sir A. C. Ramsay's work on 'The Physical Geology and Geography of Great Britain,' already referred to in my last note, p. 102, the reader will find, p. 304, fig. 57, an instructive diagrammatic section across the escarpments of the lias, oolites and chalk, and continued through the Eocene (London clay) formations lying upon the last. This section shows the relative ages of the different rocks, the oolites, one of the lowest, being the oldest but one, and in this case forming the highest land surrounding the great valley. In this section, which crosses the country from N.W. to S.E., we find (a) the lowest strata, consisting of lias; (b) the great oolitic escarpment of the Cotswold Hills, forming the first table-land; (c) the great escarpment of the chalk, forming a second table-land, above which lie the (d) Lower London tertiaries, the London clay, and the deposits above it.

It will be well in concluding the first part of this note to give a general outline of the relation the riparial districts appear to bear in their death-rates from cancer among females (at and above thirty-five years of age) during the twenty years, 1851–1870, to their geological structure. For this purpose these districts have been divided into eight groups, including London, the riparial districts of which will be treated separately and not in the present note.

TABLE OF GROUPS OF THE THAMES RIPARIAL DISTRICTS; DEATH-RATES FROM CANCER AMONG FEMALES AT AND ABOVE 35 YEARS OF AGE, 1851–1870, AND PREDOMINANT GEOLOGICAL FORMATION

No.	Extreme districts inclusive	No. of districts	Cancer death-rate to every 10,000 living	Predominant geological formation
I.	From Cirencester to Abingdon	7	13·24	Oolitic limestones, and clays and gravels
II.	From Oxford to Wokingham	7	17·39	Oxford clay, coral rag, Kimmeridge clay
III.	From Cookham to Wycombe	2	13·82	Chalk, Lower London tertiaries, and Thames valley gravels and brick-earth
IV.	From Eton to Kingston	7	17·31	London clay, and Thames valley gravels and brick-earth
V.	The Division of London	—	18·13	—
VI.	From West Ham to Romford	2	16·41	London clay, and Thames valley gravels, &c.
VII.	From Orsett to Dartford	2	12·39	Chalk, Lower London tertiaries, &c.
VIII.	From Billericay to Shepperry	6	14·98	London clay on left bank, and underlying chalk on right bank of the Thames
	ENGLAND AND WALES	633	14·40	—

It will be seen at a glance from the above table that the groups I., III. and VII., characterised by *Lime-*

stones,¹ such as the *Oolitic* and *Cretaceous*, have the lowest death-rates of the whole series, or a mean for the three equal to 13·15; whilst the *clay* groups II. and IV. above London (which, with the chalk, group III., are subject to extensive floods), have a mean death-rate of 17·35; and the more or less clayey groups below London, VI. and VIII., have a mortality equal to 15·69.

In the second part of this note the two chalk belts across the River Thames will be more fully treated.

CLINICAL GYNÆCOLOGY NOTES AND ABSTRACTS

By ARTHUR E. GILES, M.D., B.Sc., M.R.C.P.
Assistant Physician, Chelsea Hospital for Women.

LACERATIONS OF THE CERVIX REQUIRING TRACHELORRHAPHY

Trachelorrhaphy may be counted among the operations which have passed through the stages of 'boom' and of reactionary disrepute, and which have finally settled down on the list of those that are necessary, to be used in moderation.

J. DUNCAN EMMET wrote on the scope and limitations of the operation in the 'American Journal of Obstetrics' for April 1895; according to him, the object of trachelorrhaphy is to prevent the ulcerations and chronic inflammations which follow lacerations.

WILLIS FORD, in May 1895, read a paper before the American Gynaecological Society, on 'The Ultimate Results of Trachelorrhaphy' ('The American Gynaecological and Obstetrical Journal,' June 1895, p. 783). Ford discusses more especially the value of the operation in curing nervous disorders attributed to the laceration; and concludes that, if these have become established, they are but little affected by the operation, even if they were due, in the first instance, to the local trouble.

In the discussion which followed ENGELMANN and ANDREW CURRIER spoke of the operation favourably, as a method of treatment of the 'reflex nervous' conditions. PALMER DUDLEY had ceased to operate on lacerations except when the scar was tender. HOMANS,

¹ See also *A Paper on the Influence of Clays and Limestones on Medical Geography: illustrated by the Geographical Distribution of Cancer among Females in England and Wales*. By Alfred Haviland. Read before the Seventh International Congress of Hygiene and Demography, held in London on August 12, 1891. John Bale & Sons, 87-89 Great Titchfield Street, London, W. Price 6d.

on the other hand, was accustomed to operate upon slight cervical lacerations, because he felt that even in these cases the formation of cicatricial tissue, by causing reflex irritation, interfered with digestion and the process of nutrition in general.

Thus, notwithstanding a general agreement on the subject, there is still a considerable variation in individual opinions.

The kind of Cervix that requires Trachelorrhaphy

While readily granting that in certain appropriate cases repair of a torn cervix may be followed by the disappearance of general nervous symptoms, I have so little confidence in the value of this or any other operation for the cure of nervous disorders as such, that I shall leave this aspect of the question altogether, and confine my remarks to the indications for trachelorrhaphy afforded by definite local conditions.

When a cervix is torn (as during labour) the raw edges become healed over by granulation and cicatrification, but, as a rule, without uniting. The resulting fissure does not necessarily give rise to symptoms, even if deep or bilateral. For the cervical mucous membrane may gradually acquire the characters of the vaginal epithelium; the external os retreats, as it were, towards the internal, while the anterior and posterior lips of the cervix become in reality lips or lappets, which can be readily separated to a greater or less extent. A cervix in this condition is not uncommonly discovered when a vaginal examination is made on account of other symptoms; and we may admit, as a general statement, that a laceration that has healed over does not, as such, require repair.

If general neurotic symptoms are found to co-exist with such a condition as I describe, an attempt to cure them by local treatment will be an almost certain failure.

But the lesion may take a less favourable course. The exposed cervical mucous membrane may become unhealthy, either alone, or as a part of a general endometritis; it then becomes congested, and, in consequence, the lips become separated. I believe that the tendency to separation is exaggerated by a marked coincident flexion of the uterus. The everted mucous membrane is then bathed in the unhealthy secretions (arising partly from the uterus) found in the vagina; and it is but a short step from this condition to that of erosion, with the formation of the retention-cysts known as Nabothian follicles. The congestion and oedema of the cervix commonly spread to the body of

he uterus, which becomes heavy and enlarged, resembling the condition found in sub-involution. With the chronic endometritis and metritis so produced is frequently associated prolapse of the ovaries into Douglas's pouch; especially when there is also retroflexion. The ovaries share in the congestion and become unduly sensitive. The usual symptoms complained of under these circumstances are—abundant leucorrhœa, sacral aching, a feeling of weight and 'bearing down' in the pelvis, and dyspareunia.

We have here in outline the picture of a case requiring the operation of trachelorrhaphy. Yet must this not be done at once; a little preparation is necessary. Firstly, the patient should be kept in bed for ten days if circumstances allow; and meanwhile the congestion is relieved by the usual applications of tampons and douches. The uterus should be restored to its place when this is possible; and one or more applications may be made to the endometrium, according to the extent of the endometritis. In some cases these measures will suffice for relief, or even temporary cure; but there is considerable likelihood of a return of symptoms. But in any case this stage should be arrived at before repair is attempted, otherwise there is risk of non-union, and so of failure of the operation.

The Operation of Trachelorrhaphy

A few words as to the method of repairing the cervix. There are various unnamed modifications of Emmet's original plan. The following is one of the simplest. For it I am indebted to Dr. W. H. Fenton; and it is performed with the aid of a double reversible hook devised by him. This instrument may be described as consisting of two tenacula hinged together, one of which is, as it were, bisected longitudinally so as to form two hooks side by side. The single blade works between these parallel limbs. When the handles are slightly approximated the hooks look towards each other like a volsella; by further approximation the hooks first meet, the single one between the other two, and then diverge so as to look away from each other.

Thus the one instrument serves either to separate the two lips of the cervix or to hold them together.

Now for the operation. After the usual preparations, the patient is placed in the lithotomy position, an Auvard's speculum is placed in the vagina, and the vagina is douched. Curetting may next be done; but if the preliminary treatment described above has

been properly carried out, this should be unnecessary.

Stage 1.—The double hook is then introduced between the lips of the cervix, and its two limbs separated as in fig. 1. It should be placed so that the

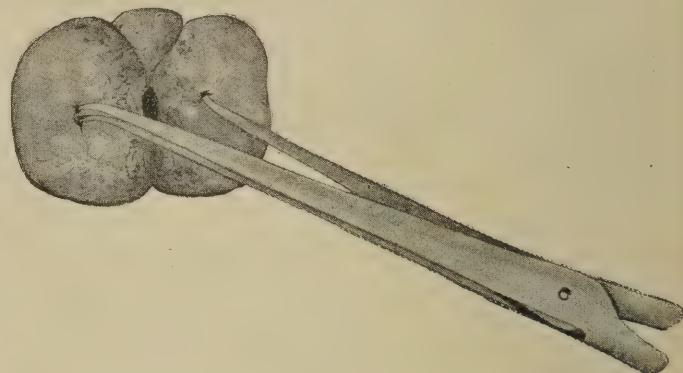


FIG. 1

hooks are inserted into the median line of the lips. When these are everted so that their inner surfaces lie almost in one plane, a flap is dissected off each side as follows (fig. 2):—The scalpel is carried from front to back, parallel to and a little to one side of the median line; the two ends of this incision are connected by a curved incision carried round the margin of the lips.

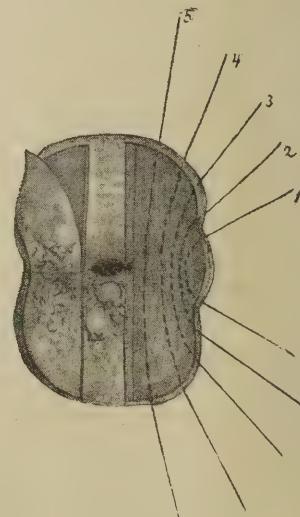


FIG. 2

Similar incisions are made on the other side. Then, commencing at one corner (as on the left side of fig. 2), each flap is dissected off. The tissue that is left between them is to form the mucous membrane of the new cervical canal. During the dissecting of the flaps a certain amount of blood escapes, which has the

effect of diminishing the volume of the cervical lips ; and these, even when they looked at first far too bulky to meet, now fall readily together on the removal of the instrument.

Stage 2.—When the lips have been brought into apposition, the double hook is reapplied by being placed with one limb in front of the cervix and the other behind, still in the median line (fig. 3). Thus

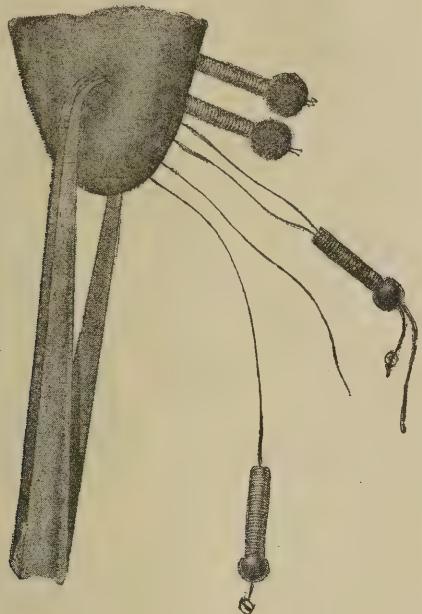


FIG. 3

the lips are conveniently held in position while sutures are passed through, three or four on each side. For this purpose a slightly curved needle on a handle is convenient ; but, if preferred, Hagedorn's needles may be used. The material may be silver wire, silk, or silkworm gut. In the figure, wire is represented, the tightening and securing being done by means of Aveling's shot and coils. This is especially useful when the cervix cannot be brought low down, and when, in consequence, tying is difficult. But my preference is for thick silk, which is less liable to cut through, and from which there is no risk of irritating the vaginal walls. As the last step of the operation a sound is passed, to make sure that the cervical canal is not blocked up. I may add that the operator need not be afraid of making the external os too small, for it is always found later to be larger than it was left at the time of operation. The vagina is packed with iodoform gauze.

As regards the after-treatment, it is best to keep the vagina as dry as possible, but if there should be

discharge irrigation is required ; and after each irrigation the vagina should be dried. The sutures are removed at about the tenth day ; for this purpose the patient should be placed in a good light, preferably in the lithotomy position.

I have seen and practised this operation at the Chelsea Hospital for Women in about a dozen cases, and the results are very good.

When seen several months later the cervix presents the rounded conical appearance which is the normal form ; and there is little chance of recurrence, especially if the two sutures nearest the median line have been properly secured.

Further, when the operation is undertaken for the reasons here given, the relief of all the symptoms is most satisfactory : a result which does not uniformly follow when it is performed for the relief of nervous disturbances.

Epitomised Lectures and Papers

THE GENERALISATION OF SPECIALISM

By SIR JAMES CRICHTON BROWNE, F.R.S.

The Presidential Address to the Medical Society of London,
Monday, October 14, 1895

THOSE Fellows of the Medical Society who were able to be present at the opening address enjoyed an intellectual treat which was only qualified by their previous expectation. Sir James Crichton Browne has so often shown himself able to deal with almost any subject in an enlightened, scientific, and eloquently suggestive manner, that those who go to hear him expect, and generally have, an exceptionally interesting discourse.

Sir James referred to the fact that several of the great specialities of the day in medicine and surgery had had representatives as presidents of that society. It was a most conservative society, but its liberal spirit characterised it in this manner, for the encouragement of specialism prevented insulation of the specialists, an insulation which might be fraught with danger and evil in many ways.

He considered specialism in the present day to be inevitable, for no one could train his senses or muscles to consummate expertness in the use of the multitudinous instruments of research and treatment

which were now known. He thought it was of great importance that the special departments should be kept in touch with the main body of the profession, that they should be conducted on rational lines, and not left as refuges for empirics or imperfectly equipped practitioners.

Referring to his own special department of medicine, he regretted that it was impossible or impracticable to separate the administrative from the scientific part of the work of men devoted to psychology in public appointments, and he looked forward to the organisation of hospitals for the treatment of mental disease, on the lines suggested by Mr. Brudenell Carter to the London County Council, which provided for the study, the systematic investigation, teaching, and administration of psychology.

Speaking of the relationship of the body to the mind, he protested against the view that mind was to be regarded as simply a result of cerebral activity or chemical transformation in the nerve centres. A neural process and a mental process had nothing in common, and facts of consciousness were not to be explained by the facts of brain function.

DISTENSION OF THE FRONTAL SINUS (WITH CASES)

By SIMEON SNELL, F.R.C.S., ED.

Ophthalmic Surgeon to the Sheffield General Infirmary.

Mr. Simeon Snell has published in the 'Quarterly Medical Journal'—a publication which he very ably edits—some cases illustrating this affection. He remarks that the frontal sinus is not developed until the fifth or sixth year of life. In the adult it occupies the upper and inner part of the frontal bone, and extends along the upper wall and to the back of the orbit to a varying extent in different subjects.

When distended, the sinus forms a projection of the upper inner orbital angle. Pain, more or less acute, and displacement of the eyeball will also occur. The eye may be prominent and displaced outwards and downwards, causing diplopia. The tumour may contain mucus or pus.

Case 1.—Male aged 55. Tumour in upper eyelid at inner orbital angle the size of a pigeon's egg. Felt firm without fluctuation. Symptoms had been noticed for about three months. Shortly before the patient noticed the tumour he suffered from severe erysipelas of the head and face, following the use of caustic to a

pimple on the lip. A month before he had noticed the tumour he had fallen and struck the superciliary ridge at its inner part, and also the bridge of the nose, against a water-trough. Figure 1 represents his appearance before operation.

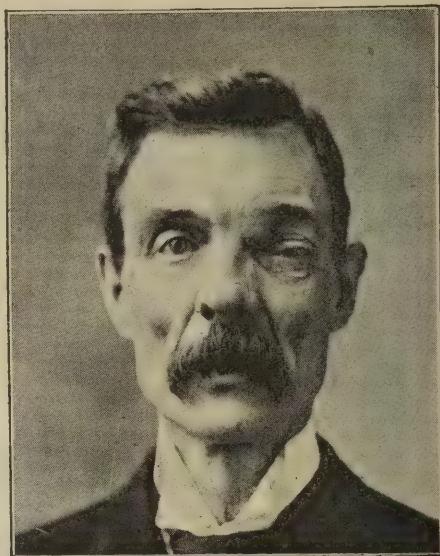


FIG. 1

Operation, May 16, 1894.—Under ether the sinus was opened; very offensive pus immediately escaped. The opening was enlarged by snipping away the wall on the orbital side with bone forceps. The cavity was cleared, and the inner surface scraped and syringed out with perchloride of mercury lotion. A drainage tube attached to a gum-elastic catheter was then passed into the sinus, and through an opening, which had been made with a director, into the nostril.

The cavity was syringed regularly with carbolic lotion, and the drainage tube retained for six or seven weeks, when the tumour had entirely subsided. The patient has remained well up to the present. Figure 2 is from a photograph taken fifteen months after the operation. There is now nothing to indicate the former disorder, except the line of incision at the inner orbital angle.

Case 2.—March, 1894. Mr. R. T., aged 34. A small lump at the inner corner of the right eye had been noticed twelve months previously. It increased in size, and towards the end of 1893 the skin became swollen and reddened. Seven weeks previous to his being seen by Mr. Simeon Snell the tumour had burst through the upper eyelid at the inner angle.

Much pus had come away, and this had partly relieved him from severe pain.

An operation similar to that in the previous case was performed, and the cavity syringed out twice daily with carbolic lotion. Great relief followed, but, the discharge not ceasing, on May 18 he was admitted to the General Infirmary, when a piece of carious bone was detected and was scraped. The cavity was then plugged with lint dipped in carbolic oil. The discharge after that nearly ceased, and a hair drain was substituted for the tube.

On February 15, 1895, the discharge not having quite ceased, he was re-admitted, and some necrosed bone removed, and the cavity syringed with boroglyceride lotion. At the time of writing the report there was still a little discharge, and a small portion of carious bone could be felt. Otherwise the patient had recovered his health, and was perfectly free from pain.

Remarks.—Mr. Simeon Snell considers that it would be always better to anticipate the spontaneous opening of the sinus by operative measures. A frequent cause of the distension of the frontal sinus is

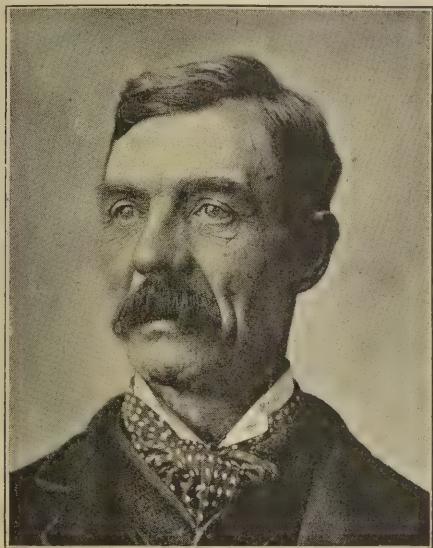


FIG. 2

an affection of the mucous membrane of the nose, from which the infundibulum becomes closed. He thought that the injury received by the first patient may have produced such closure.

Diagnosis is not difficult. The situation is too high to render confusion with distension of the lachrymal sac, and the sensation to touch would be different.

The absence of epiphora and other evidences of lachrymal obstruction would further differentiate the one from the other. There might be more difficulty with regard to diagnosing between the above condition and some cases of tumour connected with the inner wall of the orbit. There is difference in touch between an elastic tumour and a distended bony cavity, but an exostosis might give rise to some difficulty.



FIG. 3

Fig. 3 represents a case of osteoma of the orbit in the same region.

Contents of a distended frontal sinus.—The patients referred to above were cases of empyema, but the contents of a distended frontal sinus may be mucus, polypi, or an osteoma. The majority of cases are in adults. In children the sinus, not being developed, cannot be affected. Few cases occur under 20. The author knew of one in a boy aged 16. The sinuses on both sides had been known to be affected.

Treatment.—Simply opening the sinus and clearing out the contents, and inserting a drain, will not, generally, be sufficient to effect a cure. Communication with the nose must be re-established. This can hardly be done with a probe alone. The best plan is to pass the little finger into the nostril, opposing it by another passed into the cyst. The situation for making the opening into the nose having been thus found, the finger in the frontal sinus is to

be withdrawn, and the director introduced, and with it an opening can readily be made on to the finger which has been retained in the nose.

In operating it will generally be found that a knife will penetrate the wall of the sinus, but sometimes a trephine is used.

Mr. Simeon Snell does not find opening into the sinus through the nose so satisfactory as the operation described. He noticed that in both his cases there was a complaint of drowsiness, which may have been cerebral, or possibly have been caused by the want of sleep, the result of pain.

some of Dr. Klein's concluding remarks. 'Whether,' he said, 'the absence of pathogenic action from some bacilli, which are in morphological and cultural respects similar to the diphtheria bacilli, is sufficient to consider these bacilli as non-diphtheritic I am unable to say from my own experience. I do not think that the subject is sufficiently exhausted. Those bacilli which I have met with, and which in morphological and cultural respects were typical diphtheria bacilli, had pathogenic action; those non-pathogenic bacilli which I have met with, and which resembled morphologically diphtheria bacilli, showed some difference in cultural respects.'

Public Health

Inoculations against cholera.—M. Haffkine's method has been extensively tried in India, and Dr. Simpson, Medical Officer of Health for Calcutta, has published a summary of the results of the trials of this treatment during the last two years. This publication appears as an address to the chairman of the Calcutta Corporation.

The results vary, and while in some instances, especially with the East Lancashire Regiment at Lucknow, they were the reverse of encouraging, at the Assam Tea Gardens it was proved that the preliminary inoculations had a considerable protective power. At Calcutta the completed inoculation has retained its protective influence for twelve months or more. It is evident that the facts obtained warrant further trials.

Diphtheria and defective drains.—Dr. Klein, in his paper read before the Public Health section of the British Medical Association in July last, upon the Diagnostic Value of the Diphtheria Bacillus, referred to occasions upon which medical officers of health, as well as medical men in general practice, had been placed in a position of doubt as to whether cases of sore throat in children associating with other children, in or out of school, are or are not cases of diphtheria; and he proceeded to discuss the value of bacteriological examination for the purpose of definitely diagnosing the true condition of these patients.

An article upon this subject, entitled 'Prophylaxis in Diphtheria,' appeared in the March number of this Journal, and therefore we will simply quote

Modern researches upon this subject are no doubt of enormous value, and yet it is evident that we have not arrived at clear and certain knowledge as to the manner in which diphtheria is propagated. We know of many medical men in large practice who still maintain that diphtheria may be generated by bad drainage. Of course we are not questioning—and they do not question—the facts known about the true diphtheria bacillus, nor have they time, as a rule, to enter into this scientific question; but men of considerable experience can hardly make a mistake as to the nature of a typical instance of diphtheria. 'Public Health' publishes in its October number the evidence of several medical men in different districts.

Dr. Leonard Wilde, of Croydon, states that as far as that town is concerned there is no evidence of relationship between diphtheria and drainage defects, but the dissemination is, to a great extent, clearly attributable to school attendance. He also states that a large number of cases exist, particularly in certain localities, which cannot be ascribed to school attendance, pre-existing throat illness, or drainage defects, and these would appear to have a *de novo* origin. They occur where there is dampness and decomposition, and where the surrounding soil is contaminated with effete products.

Dr. Davies, of Bristol, has dealt with a large number of cases, but he states that no widespread outbreak has been traceable to any common cause, neither school association nor other conditions commonly looked upon as favourable to disease.

Dr. Pilkington, of Preston, in referring to the supposed association of diphtheria with drainage, states that in country districts diphtheria is 'most frequently

met with in those situations where stagnant sink ditches most abound, and in those towns where there is a heading back of the sewage, with the result that the traps are forced and the sewage matters find entrance into the houses.'

FRACTURES OF THE UPPER THIRD OF THE FEMUR

ILLUSTRATED BY SPECIMENS IN ST. MARY'S HOSPITAL MUSEUM, DRAWN ON WOOD, AND ENGRAVED BY NOBLE SMITH MANY YEARS AGO, BUT NEVER BEFORE PUBLISHED

[This paper was prepared for the October number, but was postponed in consequence of pressure of space. Since then Sir William Stokes's full paper has been published in the 'British Medical Journal,' with a number of very interesting illustrations.]

The discussion upon fractures of the upper part of the femur, opened by Sir William Stokes at the recent meeting of the British Medical Association, has drawn attention to many points of interest in regard to the position of the fragments, the condition of the surrounding parts, the probabilities as regards union by bone, the question of shortening, &c., associated with this injury.

Some of the most noticeable remarks made by Sir William Stokes were the following:—

1. He alluded to two groups, in one of which there was exuberance of new bone growth, whereas in the other absorption of bone was usually observed. The fibro-synovial envelope of the cervix, the so-called cervical ligament, is a structure to which attention has not been sufficiently given. In the case of fracture of the cervix, it is not too much to say that on the integrity or otherwise of this ligament the outcome of the case mainly depends.

2. Contrary to the opinion held by some surgeons, fracture of the neck of the femur may occur in the young. He showed a photograph of such a case, where the epiphysis remained ununited.

3. After injury to the hip complete interstitial absorption of the cervix femoris often occurs, and this may result with or without fracture. Senile atrophy predisposes to absorption. When the absorption occurs without fracture, it is to be ascribed to a chronic osteoporosis set up by contusion.

4. It might be held as tolerably certain that we cannot connect, as so many have done, the frequent

occurrence of fractures of the cervix in aged persons with any normal senile alteration in the angle between the axis of the cervix and the shaft.

5. Classification should be made between fractures with and without penetration, and fractures with and without impaction. The formulae which he adopted were as follows :

Fracture of cervix femoris (intracapsular)

I. Fracture with penetration of cervix into head	With penetration
II. Fracture with reciprocal penetration	
III. Intraperiostal fracture of cervix at junction with head (transverse)	Without penetration
IV. Intraperiostal fracture at centre of cervix (transverse)	
V. Extraperiostal fracture with laceration of cervical ligaments	

Fracture of base of cervix femoris (extracapsular)

I. Fracture of base of cervix with partial impaction (posteriorly)	With impaction
II. Fracture of base with complete impaction	
III. Fracture of base with partial impaction above (angle obtuse)	
IV. Fracture of base with partial impaction below (shaft split)	Without impaction
V. Longitudinal splitting of cervix	
VI. Comminuted fracture without impaction	

The fifth variety is the most common one, and the one in which osseous union owing to deficient nutrition, non-apposition of the fragments, synovitis, effusion of blood, and rapid interstitial absorption, never takes place.

6. In intracapsular fractures two conditions are essential to osseous union : (1) integrity of the cervical ligament and (2) the existence of impaction. The farther from the base of the cervix the fracture is, the less the chance of osseous union. The nutrition of the bone at the base is not so much affected as in situations nearer the head, since in the latter nourishment is derived from the medium of the cervical ligament, which is, as a rule, more or less torn or contused. The osteogenetic properties, too, of the fibrous envelope of the cervix appear to be almost nil, and absorption of the bone, the nutrition of which is so much impaired, appears to be carried on with exceptional activity, not merely in cases of fracture, but also in those of contusion ; and the difficulties of maintaining fixation and rest are more prominent, owing, among other things, to the rarity of penetration which is observed the nearer the lesion is to the head.

7. The eversion which accompanies a fracture of the cervix or of its base is the result of rotation of

the shaft upon the neck. The inversion which is occasionally present was attributed by R. W. Smith to the altered action of the adductors, which had become internal rotators owing to the forward position of the lower fragment; but this explanation is unsatisfactory, and the inversion is probably caused by the limb having been in a position of inversion at the time the accident occurred.

He referred to Senn's experiments, in which in cats and dogs attempts at fixation had failed to secure union, whereas pegging was successful.

In the discussion of this paper, **Sir George Humphry** said that fractures in any part of the body would unite at any time of life if the parts were only kept in contact. The angle formed by the neck certainly did not alter in old age, but thinning of the cancelli occurred, and this was probably due to the devouring tendencies of the cells with which the cancelli were surrounded.

Mr. Bryant remarked that (1) the presence or absence of impaction was probably the chief point to determine. He thought that most fractures of the upper end of the femur were impacted, and that it was of great importance to try to keep them impacted. (2) One great danger was to attempt to make the diagnosis very certain by excessive manipulation of the part in a useless wish to obtain crepitus. As to impacted fractures, undoubtedly the general rule should be not to loosen the impaction, but exceptions did occur.

Professor Bennett, of Dublin, in referring to 136 specimens of these injuries, made the following observation, which has an important bearing upon the advantages of operation for the removal of intervening substances and for bringing about close adaptation of the fractured parts by pegging or other methods. Mr. Bennett said that in all the *impacted* intra-capsular fractures (six in number) bony union had occurred, whereas, as we all know, this is by no means so certain in unimpacted fractures. Rest and contact of the fragments insured osseous union.

Mr. Greig Smith remarked that the want of union in fractures due to indirect violence was caused by the absence of a nidus for the development of the new bone.

Professor Sinclair, of Belfast, did not consider that any splint was needed for impacted cases.

We believe the time is coming when surgeons will interfere by operation in the majority of cases of

fracture, for the purpose of the removal of extravasation, the accurate adaptation of the fractured parts, and the severance of tendons and other restraints to such adaptation.

Shortening of a limb.—As regards shortening after fracture, of course every surgeon will bear in mind the possibility of there having been an irregularity in the length of limbs before the accident. The frequency with which such a shortening occurs without any apparent cause has been pointed out by several observers, and it is usually the left leg in which the deficiency exists. Should any question occur subsequently as to the previous existence or not of irregularity in the length of the limbs, an examination of the spine might clear up the difficulty. If previous shortening of the limb to the extent of half an inch or more is followed, as it usually is, by lateral curvature, there will be found a sigmoid curvature with the lumbar curve the more prominent, and directed towards the side of the short limb.

THE FOLLOWING SPECIMENS FROM ST. MARY'S HOSPITAL MUSEUM HAVE AN INTEREST, IT IS THOUGHT, AS REGARDS THIS DISCUSSION. THEY ARE DESCRIBED PARTLY FROM THE CATALOGUE, AND PARTLY FROM OBSERVATIONS NOTED AT THE TIME THE DRAWINGS WERE MADE

FIG. 1.—LEFT FEMUR



No. 173.—Fracture of the shaft of the femur at the junction of the upper and middle thirds

(No history, and not described in the old Catalogue)

Figs. 2 and 3.—Fracture of the neck of the femur, and comminuted fracture through the trochanters.

FIG. 2.—INTERNAL VIEW OF SECTIONS

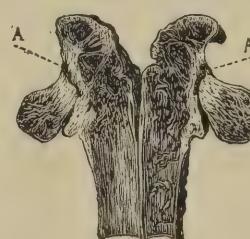
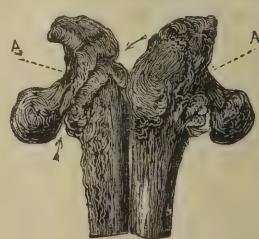


FIG. 3.—EXTERNAL VIEW



No. 171.—Fracture of the neck and trochanters of the femur.
(The trochanters are firmly united, but the neck is united by fibrous tissue only)

(In old Catalogue, Aa 88)

The first healed in its upper part by ligamentous union, the latter by excessive osseous union, with much thickening externally. The medullary canal extends quite to the extremity of the trochanters.

The engraving (fig. 2) shows a longitudinal section of the bone (internal aspect), AA pointing to the ligamentous union of the neck to the head of the femur. Fig 3 represents the external aspect of this specimen, AA, as before, showing the ligamentous union and two arrows pointing out the line of osseous junction.

Externally there has been much new bony material thrown out, upon which the firm osseous union above alluded to chiefly depends, for, upon examination of the section, the medullary canal is found to be encroached upon by new bone only to a very limited extent.

Figs. 4 and 5.—Fracture of the right femur below the trochanters. There is no union. A large quantity

FIG. 4



This specimen is not in the present Catalogue, and cannot now be found in the museum
(Old Catalogue, Aa 30)

FIG. 5



of new bone has been thrown out, forming a false joint. A longitudinal section has been made through the shaft of the bone, showing its structure to be very dense (see fig. 5). The patient, Thomas Lucas, was under the care of Mr. Ure in St. Mary's Hospital, and died of pericarditis some time subsequently to the injury.

The fractured ends of the bone were found surrounded by a large abscess, the walls of which were lined by a distinct pyogenic membrane. The abscess extended upwards and downwards for several inches along the bone, which was bared of periosteum. The opposed surfaces of the bones were covered by a cartilage like false membrane, and in the soft parts surrounding the fracture were numerous detached spiculae of bone.

The section which fig. 5 represents shows much dense bone, but the internal aspect of the other piece

is still more dense, showing hardly any medullary canal at all. (P. M. Book, iii. 383.)

FIG. 6.—FRACTURE OF FEMUR



This specimen is not described in the present Catalogue
(Old Catalogue, Aa 135)

This specimen was described as 'extracapsular fracture of femur.' There is comminution and firm impaction. The neck has been broken just external to the capsule, the fracture extending along the anterior ridge in front, and through the digital fossa behind. There is firm bony union. 'The shaft of the femur has been fractured longitudinally, and the lesser trochanter broken off and impacted between the upper ends, causing them to be widely separated. The lower portion of the shaft pushed upwards, and a considerable amount of new bone thrown out about its upper end, keeping it fixed.' The lower portion is not shown. It could not be found at the time the drawing was made.

FIG. 7.—No UNION



No. 161.—Impacted fracture of the neck of the femur; recent
(Old Catalogue, Aa 24)

Comminuted fracture through the neck of the femur within the capsule of the joint. No union.

The patient, John Esther, aged 70, was admitted into the Royal Infirmary, Edinburgh, January 4, 1851, having fallen down some stone stairs on the previous evening while intoxicated. There was ecchymosis over the right trochanter major, and all the ordinary signs of fracture through the neck of the femur. The long splint of Desault was applied, and for a time the patient appeared to do well, but after some weeks it was found that no union had taken place. Sloughs formed over the sacrum, frequent attacks of diarrhoea supervened, and, without any evidence of internal organic disease, the patient gradually sank, and died on March 13, ten weeks after the accident.

The fracture is seen to pass through the junction of the head with the neck of the bone. There is not the slightest trace of attempt at union, and at the post-mortem examination the ends of the bone were found bathed in about half an ounce of fetid semi-purulent fluid. The upper part of the capsular ligament was entire, but the lower part had been completely ruptured, and its place was supplied by a firm exudation. Imbedded in this were a few small fragments of loose bone, the largest of which has been preserved in the preparation.

FIG. 8



FIG. 9



No. 165.—Impacted extracapsular fracture of the neck of the femur, with separation of a third fragment which includes both the trochanters. Presented by Dr. Murchison
(Old Catalogue, Aa 110)

Figs. 8 and 9.—' Impacted fracture of the neck of the femur, with comminuted fracture of the great trochanter. From an elderly man who was brought to the hospital with symptoms of compression of the brain from a fall, and of which he died (see Aa 42).'

Figs. 10 and 11.—' Comminuted fracture through the trochanters of the femur. Anteriorly the fracture extends obliquely downwards and inwards from the

FIG. 10.—ANTERIOR VIEW



FIG. 11.—POSTERIOR VIEW



No. 166.—A recent fracture resembling 165, except that there is no impaction
(Old Catalogue, Aa 41)

apex of the great trochanter to half an inch below the lesser trochanter. Posteriorly, a portion of the bone is seen to be quite detached, including the lesser trochanter, with a great part of the greater, and the posterior intertrochanteric ridge. It is bounded superiorly by a fissure at the base of the neck, and inferiorly by another extending from the apex of the great trochanter downwards and inwards along the back of the bone, and round the base of the lesser

trochanter to meet the upper fissure. No trace of union.' The case was under the care of Mr. Coulson.

Figs. 12 and 13.—' Ununited fracture of the femur three weeks four days after the accident. There was no attempt at union, the ends of the fragments lying

FIG. 12.—ANTERIOR VIEW



FIG. 13.—POSTERIOR VIEW



No. 168.—Extracapsular fracture of the neck of the femur, and separation of a fragment comprising both trochanters and a pointed portion of the upper one-third of the shaft

imbedded in a soft, red, homogeneous substance, which appeared to be formed from the blood, which was extravasated, an effusion of serum, and an altered condition of the muscular tissue which clothed the bone. It was a comminuted fracture, the head and neck forming one fragment, both trochanters with a portion of the outer part of the shaft the other.'

This was the case of Thomas Howard, aged 70, admitted March 7, died March 29, 1857. Under the care of Mr. Coulson.

(P. M. Book, 582.)

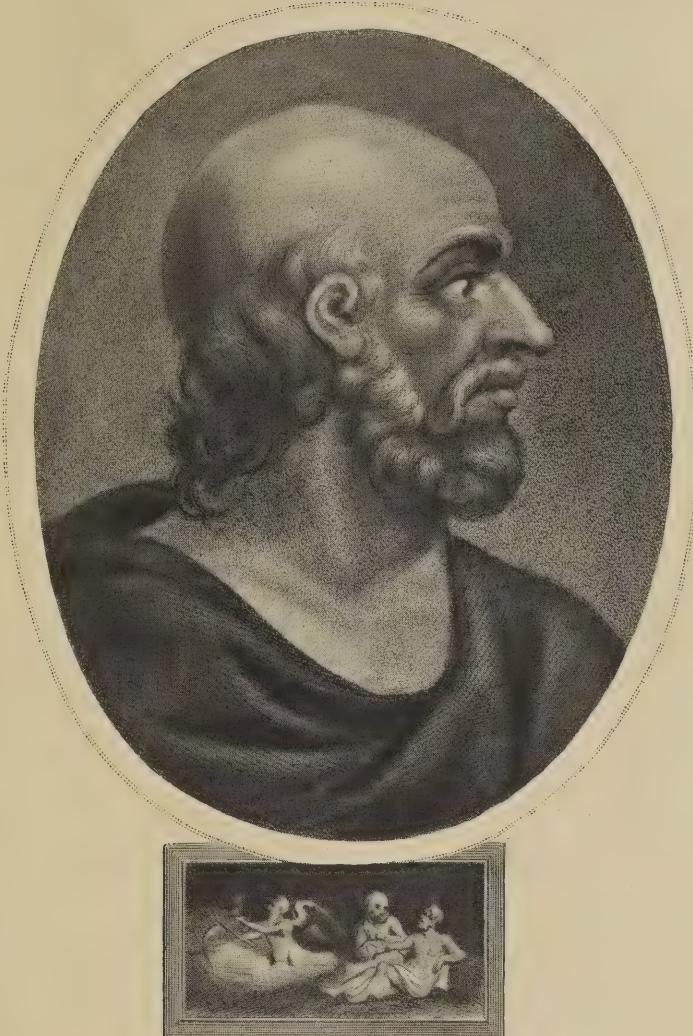
These specimens are given simply as a contribution to the subject from one metropolitan hospital.

Hippocrates

It seems probable that Hippocrates was born somewhere about the year 470 B.C., and that he died at an old age, variously estimated between 85 and 109 years.

The epoch in which he lived was a very remarkable one as regards the famous men that were his contemporaries, amongst whom may be mentioned Pericles, Sophocles, Socrates, Plato, Xenophon, Herodotus, and Phidias.

Probably the greatness which Hippocrates attained in the study and practice of medicine was due to the



J. Chapman, Sc.

HIPPOCRATES.

*Taken from a gem in the possession of T. Taaffe Esq. in Leicester Square.
London Published Oct. 21. 1809. by J. Wilkes.*

fact that he denounced all quackery, and studied the natural history of disease, and especially the tendency of maladies towards a favourable or fatal issue.

'Nothing strikes one as a stronger proof of his nobility of soul, when we take into account the early period in human cultivation in which he lived, and his descent from a priestly order, than the contempt which he everywhere expresses for ostentatious charlatanry, and his perfect freedom from all popular superstition.'

So writes Francis Adams in his preliminary discourse to the works of Hippocrates, translated for the Sydenham Society of London, and published in 1849.

Hippocrates studied most carefully that *vis medicatrix*, that principle of Nature of which he well said, 'It is a physician of diseases.' The study of dietetics occupied much of his attention, and his use of drugs was based upon sound observation and scientific inquiry.

As to surgery, he was the boldest of operators, and at the present day it is astonishing to read how he trephined the skull for injuries of the head, opened the chest for cases of empyema and hydrothorax, and how carefully he set his fractures and dealt with injured joints.

Francis Adams remarks with regard to club-foot, that it might have been affirmed of Hippocrates a few years ago 'that he was twenty-four centuries in advance of his profession when he stated that in this case there is no dislocation, but merely a declination of the foot; and that in infancy, by means of methodical bandaging, a cure may in most cases be effected without any surgical operation.'

Every student hears or reads about the celebrated oath of Hippocrates, a full translation of which is given in the above-named work.

It may be epitomised as follows: 'That, according to my ability and judgment, I will keep this oath and this stipulation. To reckon him who taught me this Art equally dear to me as my parents; to share my substance with him, and relieve his necessities if required. . . . I will give no deadly medicine to anyone if asked, nor suggest any such counsel. . . . With purity and with holiness I will pass my life and practice my Art. . . . Into whatever houses I enter I will go into them for the benefit of the sick, and will abstain from every voluntary act of mischief and corruption. . . . Whatever in connexion with my professional practice, or not in connexion with it, I see or hear, in the life of men, which ought not to be spoken of abroad, I will not divulge, as reckoning that all such should be kept secret.'

'While I continue to keep this oath unviolated, may it be granted to me to enjoy life and the practice of the Art, respected by all men, in all times! But should I trespass and violate this oath, may the reverse be my lot!'

Professor Leech, in his introductory address at the Yorkshire College at Leeds in opening the Winter session on October 1, referred at some length to the writings of Hippocrates. Dr. Leech considers that the knowledge displayed by Hippocrates of drugs and diseases could not have been entirely from his own experience, and therefore that Greek physicians must have existed at an earlier date than five centuries B.C.

Dr. Leech considers that it would have been fortunate for mankind if medical progress which followed the time of Hippocrates had continued on the lines laid down by that great man.

Subsequent to his time an enormous number of drugs were introduced into practice which were not an unmixed blessing.

Perhaps the most celebrated of the writings of Hippocrates are his Aphorisms, the composition of which Suidas, who lived more than seventeen centuries later, refers to as 'a performance surpassing the genius of man.' They were probably written when Hippocrates was considerably advanced in age, as stated by Galen.

The first aphorism is familiar to us all: 'Life is short and the Art long; the occasion fleeting; experience fallacious, and judgment difficult. The physician must not only be prepared to do what is right himself, but also to make the patient, the attendants, and externals co-operate.'

Then follow a number of terse remarks concerning the practice of medicine, of which it has been written, 'Whoever is possessed with any proper degree of liberal curiosity to understand the real state of professional knowledge at the time when its scattered fragments were first embodied into a regular system; and whoever would wish to have his mind thoroughly imbued with those enduring principles which have formed the groundwork of medical theory and practice during the many revolutions of professional opinions in the course of the last twenty-four centuries, should give his days and nights to the study of these aphorisms.'

DEATH BY ELECTRIC SHOCK

Dr. A. M. Bleile, of Ohio, in discussing this subject, comes to the conclusion 'that death in electric shock is really due to the fact that the current pro-

duces a contraction of the arteries through an influence on the nervous system, and that this constriction of the arteries throws in such a mechanical impediment to the flow of the blood as the heart is unable to overcome.'

The 'New York Herald' for August 22 publishes an account of an interview with Mr. Edison, who in the course of his remarks stated that he was quite sure that death by electricity was too rapid for a man to be conscious of it. There was no doubt that an intermittent current, such as is used in executions, is the most deadly. The interviewer remarked that the voltage employed at Sing Sing and Auburn is from 1,200 to 1,700, and, therefore, how was it that Mr. Tesla in his famous experiments two or three years ago was able to stand 250,000 volts?

'Well,' said Mr. Edison, 'there are two things to be kept in mind in talking about electric currents—ampères or volume, and volts or pressure. If you use a missile as slender as a knitting-needle it will not deliver so heavy a blow as a bar an inch thick flying at the same rate. A pressure of 200,000, or even 1,000,000, volts may be comparatively harmless. Two ampères are required to kill a man if the pressure is the same as that used at Sing Sing and Auburn. Of course the contacts between the terminals of the wire, or electrodes, and the human body must be good to insure the passage of the current through the latter. About thirty linemen are killed every year, and these poor fellows usually touch the fatal wire only for a second, are partially protected, perhaps, by their clothing, and often receive the current at a lower voltage than is employed for execution.'

Mr. Tesla informed the writer of the article that he laid great stress on having the electrodes, or terminals of the electric currents, placed in proper contact with the body. The dry skin is a pretty fair insulator, and may obstruct the passage of the current; but if the two contacts be made with the blood or fluids of the body, no doubt 100 volts, or even less, would kill a man in an instant.

The report of the two experts, one a physician and the other an electrician, upon the case of the execution at Sing Sing on January 28, 1895, appears as follows: 'The evidence is that a current of eight ampères, applied through the body at a pressure of 1,740 volts, will produce instantaneous, painless, and absolute death; and that the evidence presented by an examination of the brain was sufficient to demonstrate the absolute impossibility of resuscitation.'

These remarks were called forth by the reports

which were circulated in America of cases having occurred in which convicts had been resuscitated after apparent execution under the law of the New York State.

We are chiefly concerned in this country with regard to accidents in connection with electric lighting and electric motors. Dr. H. Lewis Jones, medical officer in charge of the electrical department at St. Bartholomew's Hospital, lately published a paper in the 'British Medical Journal.'

He considers that the manner in which electric shocks cause death is one of considerable interest, because its right interpretation will help us in the matter of treatment. He refers to the writings of D'Arsonval, who considers that it is not the heart but the respiration which fails. D'Arsonval has even given the opinion that criminals executed by electricity have died rather from the effects of the post-mortem examination, and that the shocks had only rendered them insensible.

There is a case recorded in the 'Comptes Rendus,' vol. xcvi., in which a man was resuscitated by artificial respiration commenced three-quarters of an hour after an accidental electric shock.

In answer to these recorded instances Dr. Lewis Jones remarks that artificial respiration has been employed in vain in many cases, and that in the post-mortem examinations upon the American criminals the heart was not found beating, although the necropsy was begun immediately after the execution.

After describing certain experiments upon animals, the author of this paper remarks that such experiments show clearly that the effect of the shocks was the arrest of the heart's action, while respiration was not seriously affected, nor was there any state of suspended animation recorded when the shocks were insufficient to stop the heart. Its action became feeble for a time, but quickly recovered. Respiration was somewhat altered in rhythm. He thought it not unlikely that there may be a stage on the borderland between life and death when the patient is rendered insensible, but the heart's action not completely arrested, and in these artificial respiration might be of some service.

'I fear,' writes Dr. Jones, 'that death in the victims of severe electric shock is too often real, not apparent, and that they are, as a rule, quite beyond resuscitation by artificial respiration, or by any other means with which we are acquainted.'

He thinks that for men working with electric wires indiarubber boots without nails should be used (as

well as gloves), so that they shall be insulated from contact with the earth.

Artificial respiration should always be put in practice in the case of anyone receiving a shock; if the slightest sign of heart-beat can be detected, this method should be perseveringly continued.

'The slightest sign of heart-beat.' With regard to these words we would remark that it is always a question whether the heart has absolutely stopped beating when the ear does not detect its sounds. Of course much depends upon the accuracy of hearing on the part of the surgeon, but even the most acute hearing possibly may not detect a very feeble action.

An instance occurred many years ago at which the writer was present, which has a very practical bearing upon this point.

A man about 50 years old was brought to a hospital in an apparently lifeless condition after a fall from a horse. He had, it seemed, injured the cervical vertebræ, for his head was twisted laterally to a considerable extent. He was examined by the registrar of the hospital, who was a man of considerable experience, and also by two house surgeons, who pronounced him to be dead, and orders were given for him to be taken to the deadhouse.

As that was about to be done the third house surgeon entered the room, and, as a matter of form, listened to the heart. He heard, or fancied he heard—more probably fancied—some slight beat, and he suggested that some brandy should be poured down the man's throat. This was done; the man revived, and was put to bed, where he remained for many weeks on account of the injury to his neck. He was living some years afterwards, although with a crooked neck, probably from a fracture-dislocation.

the contraction was clearly caused by a band of indurated fascia which could be plainly felt in the palm. There was no cicatricial contraction of the skin. The dog-bite, no doubt, could be regarded as a contributory cause of the condition present; indeed, it was often the case that Dupuytren's contraction could be traced, in the first place, to an injury. Medical men in olden days always regarded this special form of contraction as caused by the tendons. But the latter structures were much deeper seated than the bands of indurated fascia which could be so plainly felt in the palm in the cases in question. The contraction was sometimes limited to the little finger, while sometimes both the ring and the little finger were affected. There was liability to free haemorrhage after dividing the bands subcutaneously. The best plan in operating was to make several nicks.'

Among the seventy cases seen and reported on by Noble Smith to the Medical and Chirurgical Society some years ago, it was shown that Dupuytren's contraction often occurred without any history of either injury or hard manual work. But one case had followed an injury to the hand of a man who was employed at the London Zoological Gardens; a spike had pierced the palm and penetrated at the back of the hand, and in healing the fingers had contracted. It was found that this contraction was almost entirely confined to the palmar fascia.

As regards the observation that 'the contraction was sometimes limited to the little finger, we would remark that this should be distinguished from congenital contraction of that finger, which is quite a different condition, and depends upon alteration in the joint and contraction of the ligaments.

In respect to the nature of Dupuytren's contraction, it is quite remarkable how many medical men still live who imagine that the deformity is due to contraction of the tendons. A very simple way of showing that the tendons are not involved is to place a finger upon the contracted bands, and direct the patient to flex the fingers further against some resistance. If the contracted band were the tendon, such an action would increase the tension, whereas it causes at once a relaxation of the band of fascia.

The Practitioner's Note Book

Dupuytren's contraction of fingers.—Mr. Jonathan Hutchinson, in one of his Post-graduate Clinical Demonstrations (as reported in the 'Medical Press and Circular'), referred to a gentleman who suffered from contraction of the ring finger of the right hand. 'The gentleman stated that some time ago he had been bitten severely in the hand by a dog, and that the contraction of his ring finger had gradually supervened. Mr. Hutchinson pointed out that

Erysipelas serum in malignant growths.—Experiments continue to be made in this direction. Kopfstein ('Wiener klin. Rundschau,' 1895, Nos. 33 and 34) has used three different strengths of serum in fifteen cases of malignant disease—thirteen carcinoma, one sarcoma, and one lymphoma. Constitutional disturbances occurred in all cases, and in some cases assumed a serious aspect. Rigors occurred in some of the cases, and a rise of temperature to $105^{\circ}8$ F., the average being $101^{\circ}2$. Pyrexia occurred half an hour after the injection, in some cases later, lasting four or five or six hours.

The injection into the tumour produced no good effect

on the secondary growths, but the reverse, as they increased in size.

The author thought that the action of the serum was purely local, the tumours breaking down from the effect of the injection. In those cases even where the growth diminished, no prospect of cure could be held out.

Thyroid extract for keloid and hypertrophied cicatrices.—A young girl was wounded by falling with her face against a mirror, causing a large crescentic wound of the right cheek. Immediate treatment by washing the parts and bringing the edges carefully together was adopted. Union took place by first intention.

This was in March 1894, and seven months later the cicatrix had become very much hypertrophied and caused great disfigurement. The use of absorbent ointments, pressure, and other methods of treatment were tried, but failed, and in January of the present year—that is, three months after the healing—the patient was given thyroid extract in five-grain tablets daily. Local treatment was discontinued, but the scar was painted with collodion to prevent its being rubbed or irritated.

Constitutional symptoms from the thyroid extract were produced, but after a few weeks a distinct change occurred. After six weeks of this treatment the hypertrophy had disappeared.

The author of the paper does not describe this as a true keloid, but thinks it practically the same thing.—J. W. White ('University Med. Mag.', August.)

Cancer and water.—In the 'Birmingham Medical Review' for October 1895 Mr. T. Law Webb, of Ironbridge, states that in twenty-five years' practice in the district of the Shropshire coalfields he has never seen a case of cancerous disease in a collier who was working in the pits, and an examination of the books of the district registrar shows that, of all persons whose deaths are registered as due to malignant disease during the past thirty years, only two are described as 'coal miners.'

The 'British Medical Journal,' referring to this point, states:—'If it is a fact that men working underground, and not drinking much water, are more exempt from cancer than those in a similar state of life working above ground, and drinking from casual water supplies, we shall have a more tangible reason for suspecting cancer to be a water-borne disease than is afforded by any of the present theories or statistics.'

As regards this point we would refer our readers to the observations and facts brought forward by Mr. Alfred Haviland and others acting upon his suggestions—facts which show conclusively the influence of water-logged districts upon the production of cancer.

Barbers and dentists.—When will the public learn that it is better to go to properly qualified men than to irregular practitioners, whether in respect of their general health or as regards their teeth?

Many men are bold enough to let a stranger shave them, but it is rather rash, to say the least, to allow a barber to scale and stop one's teeth. The customers of the Strand barbers found it rather costly, and we hope they will not suffer further than their pockets.

Corporal punishment for girls.—Mr. Evelyn Cecil writes to the 'St. James's Gazette' upon this subject. He states that the punishment proposed is not 'flogging,' which means to 'the ordinary mind' punishment inflicted upon 'the official spot.' No! nothing so cruel as this, but 'merely caning on the hand.'

We protest most emphatically against this custom. The hand is not the place for caning. Serious harm may follow such a practice. But the 'official spot' can be belaboured to any necessary degree without any physical harm resulting.

Fashion and theatres.—'Land and Water' remarks that the dress at one of the London theatres upon a recent occasion was 'dowdy.' 'Many of the women were in throat-high gowns; but there were some notable exceptions.'

We are glad to know that ladies are becoming more sensible in this matter of dress at theatres. So long as the architects of our theatres are unable to construct them so as to prevent severe draughts, it is simply madness for ladies to go in low-necked dresses, and we are pleased to find the custom breaking through. Since the introduction of electric light we have missed the intolerable heat which we were doomed to encounter when we went to the play, but the other extreme has come about. Great-coats, warm wraps and skull-caps are far more appropriate than evening dress.

MOSS PEAT AND ITS PRODUCTS

For some years past peat moss litter has been in use for various purposes, and especially as bedding for horses and cattle. More recently other uses have been made of products obtained from the peat, which promise to be of considerable value from a surgical

point of view. Béraudine peat-powder is now prepared, which is used for disinfecting purposes in connection with sewage removal, and then as manure, and for various other purposes, such as fruit packing. The fibre is also compressed into various articles where a non-conducting element is desirable, such as bricks and slabs for lining ice-boxes, cold-storing rooms, refrigerators, and for packing round water and gas pipes to keep out the frost.

Béraudine peat-wool has also been introduced, made from the fibrous peat by a patented process, and this wool is used for a variety of hygienic purposes—surgical dressings, flannel and dress goods, rugs, blankets, and a number of minor articles.

It is claimed for the moss litter, as a bedding for horses and cattle, that it affords a comfortable, soft, elastic, and dry bed, absorbing the excreta and preserving their manurial value. Comparing it with straw, it is far more absorptive, and therefore produces a drier bed, and, as it does not allow the ammonia to escape from its pores, it is sanitary and healthful, and makes a better manure. Its absorptive powers are three times that of straw, and it is said to last twice as long as the ordinary bedding.

There can be no doubt that it is distinctly cheaper, and, if we can get rid of the prejudice of its appearance in the stable, from the point of view of economy and health it is very advantageous.

We have not space to enter into all the arguments in its favour, and would refer those who wish to try it to the pamphlet written by Mr. John Burke, and published by The Moss Litter and Peat Industries, Limited, of 32 Queen Victoria Street, E.C.

We lately saw this litter in use in the stables of a very practical lady in the country. She had used it for over four years, and was very pleased with the result. She could not give us exact details, but had found it very much cheaper than straw; which statements are confirmed by the largest railway, tramway and omnibus companies, and large owners of horses.

Our chief concern, however, is with regard to **Béraudine peat-wool as a surgical dressing.** The structure of the mosses which form the light peat has been minutely investigated by a great many German scientists, and it has been shown that the absorptive power depends upon the peculiar structure of the fibres. The cells of the fibre are provided with openings in their outer walls, and they suck fluid in, whereas in the case of most fibrous substances used for dressings, such as cotton, tow, &c., the liquids, being taken up by capillary

action, are held merely in the interstices between the fibres, and are therefore not shut off from contact with the air. Thus, when organic discharges from ulcerating surfaces are absorbed by this material, there is a remarkable absence of putrefaction and smell, which cannot be obtained by other natural absorptive materials. This applies especially in using dressings for the discharges from carcinoma.

Dr. Neuber, of Kiel, as far back as 1882, published an account of his experience in the 'Kiel Surgical Clinic.' Peat powder, or the peat wool, used alone, or after treatment with carbolic acid or iodoform, was applied by means of bags to various wounds and suppurating surfaces. The peat moss was found to absorb nine times its own weight of liquid, and he also found that it had very great power of absorbing products of organic decomposition. Other surgeons who have published statements of its beneficial effect in Germany are Drs. Leisrink, Mielck, and Korach, of Hamburg, Professor Esmarsch, and Drs. Langenbeck and Prahl.

The subject was dealt with in the 'Lancet' for July 21, 1894, by Dr. Harold Burgess Osburn, of Bagshot. He records, in the first place, the history of the use of Béraudine peat-wool, and remarks upon the favour which has been accorded to this dressing in the French Army, which has now definitely adopted it to replace the gauzes and wools which have been hitherto used in the military hospitals.

Dr. Osburn examined the microscopical structure by macerating fibres of the Béraudine peat-wool in a solution of potash, teasing them out, and examining with an $\frac{1}{8}$ in. objective, and he describes the peculiar construction which we have already referred to.

As to the antiseptic qualities, he considers that it does undoubtedly retard the development of micro-organisms. It is not a bactericide—and this fact the manufacturers are very careful to state—but its retarding effect upon germ growth is a power not possessed by any other dressing material in itself. On account of its absorbent qualities, it can be more easily impregnated with perchloride of mercury or any other antiseptic.

M. Lucas-Championnière has found it of immense value in cases of extravasation of urine necessitating free incisions, after dispensing with ordinary dressings and packing with Béraudine peat-wool, and he has also found it useful in all kinds of surgical cases where an absorbent dressing is required. Dr. Osburn had used the peat-wool for eighteen months in the ordinary routine of country practice.

Its advantages are undoubtedly, the lessened cost being one of them. Its disadvantages are, first, the tendency for the fine fibres to break and produce some brown dust—a result which may be prevented to a great extent by covering it with thin gauze. The brown colour is also objected to by some people. Its cheapness, natural antiseptic and oleodorant qualities, ought to make it of immense value in hospital and infirmary work, and even in the private surgery, when the plan is adopted of surrounding the wool with gauze.

PRACTICAL TEST

We experimented with the Béraudine peat-wool in the following manner:— Half an ounce of the wool and the same amount of the best absorbent cotton-wool were taken. The Béraudine peat-wool was lighter, and occupied rather more space than the other. We placed the specimens in separate bowls, each containing two ounces of water. The cotton took up all the water immediately; the peat-wool was slower, and took several minutes to absorb it. Two more ounces of water were then placed in each bowl. The cotton rapidly took it up—the peat wool much more slowly. After standing all night it was found that the whole of the water had been taken up by the cotton-wool, and nearly all by the peat-wool.

Upon squeezing them out, the cotton remained soddened, and of practically no further use, whereas the peat-wool expanded, and could be used as a sponge.

The water used for the cotton-wool in the experiment was slightly opaque, and contained a few particles of cotton. The water used for the peat-wool contained small pieces of fibre, and was slightly tinged brown. The latter had a slight clean-earthy odour.

We believe that for practical purposes the Béraudine peat-wool will be found of great value, and, in many respects, far superior to cotton-wool. It forms the best substitute for sponge that we know of, and is very soft and fleecy to the touch. Where cost is a consideration, and a natural antiseptic and deodoriser is required, the Béraudine peat-wool is especially useful.

ACCIDENTS IN THE HUNTING-FIELD

By NOBLE SMITH

NEARLY every particular occupation or sport which is attended with danger to limb or life has peculiarities which affect in some degree the character of the accidents incidental to its following.

A knowledge of these peculiarities may help the surgeon in his diagnosis, and may enable him to suggest measures of prevention.

Mr. George Wherry, of Cambridge, has written a little work, with the title 'Preventive Surgery,' which treats of accidents in various industrial occupations, and in some sports, such as boating, from the above point of view, and I now propose to do the same with hunting.

FALLS

Falling is doubtless the most frequent cause of hunting accidents, but as no one who rides boldly across country can avoid the occasional occurrence of a fall, it is desirable to discuss how such accidents may be minimised, and, when they do occur, how they may be rendered as harmless as possible.

The most important point for consideration is the 'seat' of the rider.

THE SEAT

According to Beckford, the first attribute to a good huntsman is courage, next, hands and a seat. As to courage, that we must leave to the rider. As regards the seat, there is a great deal to be said.

No one has described more graphically the best way to sit on a horse than Sir Francis Head.¹ The two forms of seat with which we are most familiar are the 'military' and the 'hunting seat.' The former is excellent in its way, and approaches the natural attitude adopted by the American Indians, and also to some extent the attitude depicted in the Elgin Marbles. 'This attitude,' says Sir Francis Head, 'is not only highly picturesque, but particularly easy to the rider, who, while partaking of the undulating motion of his horse, can rest his wearied body by slight imperceptible changes of position on the pivot or "fork," on which, like corn waving in the wind, it bends.'

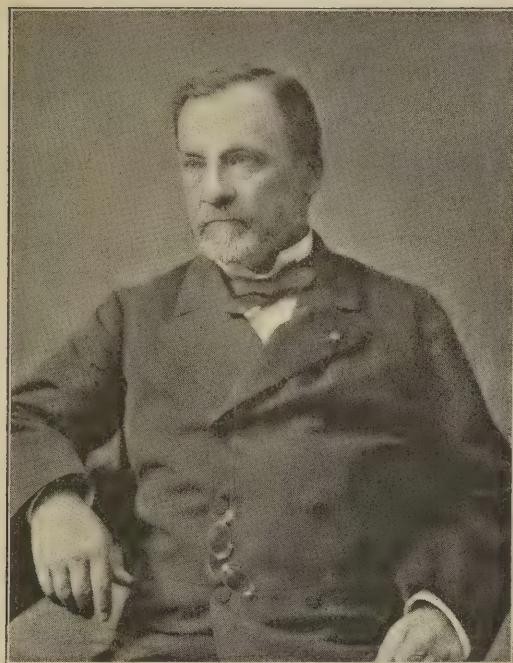
Excellent as this position is, I would take strong exception to the ridiculous military custom of not rising in the saddle to the trot—a custom which is not only tiring to the rider, but also to the horse, and which, although symmetrical, cannot be considered graceful.

In the hunting-seat, as most of us know, instead of the fork, the pivot is placed at the knees, the body rising and falling as if upon a hinge. It is not so conducive to sidelong movements, as in the use of a sword, but is of immense advantage in crossing

¹ *The Horse and his Rider.* By Sir Francis B. Head, Bart. London : Murray, 1860.

Louis Pasteur

BORN DECEMBER 27, 1822. DIED SEPTEMBER 28, 1895



From a Portrait by Barraud, 263 Oxford Street, W.

A SCIENTIFIC Chemist from his childhood, and a discoverer of valuable chemical and pathological facts from his youth. He exploded the theory of spontaneous generation. He overcame the plagues of anthrax (charbon, or splenic fever), thus saving the lives of incalculable thousands of sheep and oxen, and, indirectly, of almost as many human beings. By discovering a remedy for the parasitic disease of silkworms, he rescued from danger of destruction one of the most important industries of France.

These are a few of the many great services which Pasteur has rendered to science and the world in general.

Regarding his death we may say with Sir Joseph Lister, 'The world has lost a personality as beautiful as it was great.'

country, for it enables the rider to avoid concussion in fencing, &c., and gives him comfort in his movements.

THE SEAT TO BE AVOIDED

The most important point in connection with our subject is the consideration of the forward position which many riders take upon their horses, bent in the attitude of the last effort of getting into the saddle. ‘When,’ says Sir Francis Head, ‘a man in this toad-like position rides along—say, a macadamised road—he travels always ready, at a moment’s notice, to proceed by himself in the direction in which he is pointing, in case the progress of his horse should be suddenly stopped by falling down.’

Sir Bellingham Graham called this ‘a wash-ball seat.’ Why, I do not know, but it almost certainly leads to the rider falling forwards upon his head should the horse come down.

We are most of us familiar with a little toy which represents a rider balanced on the back of a horse by a wire passing through the saddle, and a weight attached at the lower end. As soon as the toy horse is moved suddenly forwards the body of the rider shoots backwards. This is what should happen to a man with a good seat. When the body of the rider is curved forwards there is no opportunity for that swing back which I allude to.

If the rider keeps his body upright, or slightly sloping backwards, the horse may trip or fall upon his knees, and the rider automatically swings backwards in the saddle and is safe. No one ever falls off backwards, unless he is stunned or the horse is rearing, and this fact cannot be too strongly impressed upon young riders, and, we may also say, upon many old ones too.

I believe this point is absolutely the most important one in connection with the avoidance of serious falls. To emphasise this, the author I have quoted refers to an admirable rider named Jack Shirley, whipper-in to the Tedworth Hunt, who was once observed riding hard down-hill with his reins lying nearly loose on his horse’s neck, an open clasp-knife in his mouth, while he was occupied in fixing a piece of whicord to his lash.

‘On the other hand, when a gentleman, however fearless he may be, sitting at an angle of 45°, like a thirteen-inch mortar on its bed, attempts to ride down the steep declivity referred to, the afflictions that befall him are really piteous, for the instant his horse’s forelegs sink considerably lower than the hind

ones he feels that unless he holds on very tightly he must inevitably pitch over the bows of the vessel that is carrying him. To maintain his equilibrium he therefore pulls a little at his curb-bit, which not only raises his horse’s head till it nearly touches his nose, but throws the animal and the weight he carries into such a false position that it becomes difficult and dangerous to advance.’ The writer further describes the ludicrous situation of the rider under these circumstances.

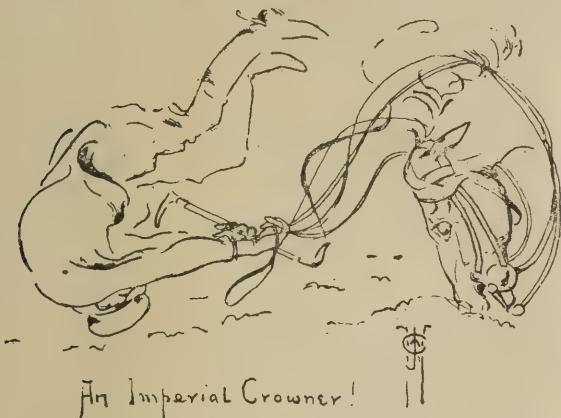
Robert Weir, in his article on hands and seat in the volume on Riding of the Badminton Library, says that the rider ought to sit in the middle of the saddle. ‘If a man sits too far back it will have the effect of pushing the legs too far forward, and although he may, from long practice, be able to sit on his horse in this fashion, yet he would never be able to use his legs properly. . . . It will be apparent to anyone, whether he ride or not, that a man who leans his body too far forward must ride to a certain extent on his fork, and is almost entirely at the mercy of the horse. The man who has good hands and seat—and they go very much together—is he who sits well down in the middle of his saddle in an easy, natural position, the upper part of his body over his hips, or, if inclined either way, a little back; his thigh well down the flap of the saddle, and the lower part of his leg about covering the girth: the body supple, not resisting the motion of the horse. The elbows should always be under the shoulders, without stiffness, and the hands should give and take, so as not at any time to have a dull hard feeling on the horse’s mouth. The leg should work in unison with the hand. It will be found that the man who rides in the position described will, in applying the leg, draw a little back, so that the horse feels the pressure just behind the girth. The man who has good hands and seat will not, if his horse throw his head up and poke his nose out, immediately clutch the reins shorter and ram his legs or spurs into the animal’s sides, but will drop his hand for a moment, and then, when the horse drops his nose, as he is almost certain to do, will quietly shorten his reins a little, and close the legs so as to endeavour to keep him there.’

RESULTS OF A ? SEAT

I remember especially two well-known men who adopted the ‘note of interrogation’ style, as the forward posture has been called, to an extreme extent. Of the first it was remarked to a friend, ‘If that man has

a bad fall, he will break his neck! Six months later this event occurred. The second was a remarkably good rider and an excellent horseman, except for this peculiarity. I had several times remarked upon his position, and referred to the diagnosis of the previous case, and I am sorry to say the same result followed. At the end of last season this good sportsman and most amiable companion lost his life from a fall while following the Windsor Draghounds.

The following illustration, which has been kindly lent to me by the editor of 'Land and Water,' shows the position in which a man is likely to fall when



adopting the bad seat referred to as 'the note of interrogation style,' and I propose in a future article to deal with the peculiarities of the injuries which may be thus brought about.

(To be continued.)

Health and Holiday Resorts



THE long continuance of summer weather having induced many of those who wish to escape from the severity of an English winter to postpone their arrangements for resorting to some milder atmosphere, it may not be too late to offer some remarks upon mild climates.

The observation was made many years ago that invalids in large numbers migrate every autumn to the South of France, Spain, and Italy merely to find

a grave, and there can be no doubt that such is the case even at the present day.

We have plenty of mild, sheltered, and well-drained places in Great Britain to which patients might go with almost equal benefit to that which they derive from foreign European health-resorts.

There is certainly a want of entertainment, not to say of comfort, in many of our own winter resorts, which it would be well for the authorities of these places to rectify; yet there are a great many people who do not like adapting their habits to foreign customs, and who depend much upon the comforts of home life.

It is unnecessary to enlarge upon the necessity, to delicate people, of comforts which are only to be obtained at home, or at least in their own native country. Although England cannot quite compete with the South of France as regards winter climate, yet at this time of year those who have to seek a more congenial atmosphere must not forget the severity of the trials incidental to travelling before they get to their destination.

English mild climates.—We naturally look chiefly to the South of England for places to which phthisical and other delicate patients can resort with benefit in the winter.

In the following brief references to some of the more popular winter health-resorts we have placed in parentheses the time (approximately) taken in reaching them from London.

Sandgate.—Near Folkestone; mild, with exemption from fogs; less relaxing than Hastings. ($2\frac{1}{2}$ hours.)

Ramsgate.—Not very warm in winter, but possesses an excellent invalids' hotel (The Granville), which is fitted with good Turkish and other baths. ($2\frac{1}{2}$ hours.)

Hastings and St. Leonards.—Well known to possess a mild and healthy climate. ($2\frac{1}{4}$ hours.)

Worthing would be an excellent winter resort if the hotels gave better accommodation. ($1\frac{1}{2}$ hours.)

Bournemouth.—(3 hours.)

Undercliff of Isle of Wight.—(4 hours.)

Weymouth.—(4 hours.)

The general characters of these last three places are sufficiently well known.

Budleigh Salterton.—A well-sheltered spot five miles east of Exmouth; mild but bracing. (5 hours.)

Dawlish.—More humid than Torquay. (5 hours.)

Salcombe.—One of the best-sheltered, warmest spots in England, but sixteen miles from a railway station, Kingsbridge Road, the latter being 6 hours from London.

Sidmouth.—Very sheltered and warm. (5 hours.)

Torquay.—Mild; but relaxing. (6 hours.)

Penzance.—Mild and invigorating. (9 hours.)

Probably the most convenient place and the most replete with comforts is the old-fashioned Hastings and St. Leonards. We are surprised that the railway does not run quicker trains.

Climates for asthma.—One of the most troublesome diseases, in the treatment of which climate forms a most important item, is asthma. Dr. Burney Yeo, in his recently published ‘Manual of Medical Treatment,’ deals with this subject in a very practical manner. ‘It has generally been thought,’ he says, ‘that patients should be removed to a place which presents the precisely opposite conditions to those which prevail in the locality where the asthma has attacked them.’ Densely populated, smoky, and stuffy districts in large cities have been often said to be the best for spasmodic asthma, and it is certainly curious to notice how few suffer from this affection in the poorest districts of London.

Dr. Burney Yeo, however, does not believe much in this view, and rather approves of anti-catarrhal districts; and if it be true, he says, that 80 per cent. of asthma cases are complicated by bronchial catarrh, this result might be anticipated. It is the purely nervous cases that are so capricious with regard to climate and atmospheric conditions; and this capriciousness will be observable even in the case of seaside resorts in close proximity to one another. A patient has been known to leave London on account of asthma for Deal, and find his asthma worse there, but upon going to Folkestone the asthma has left him immediately. Nervous cases will often do well in high altitudes, as in the Engadine; and even catarrhal cases will improve if the season should be fine, but in bad seasons they are sometimes made much worse. Cases complicated with chronic bronchial catarrh and emphysema should never be sent to these resorts.

Cases associated with bronchial catarrh may find a suitable climate at Madeira or the Canaries. Some asthmatic patients have found relief at Arcachon, Biarritz, Pau, and Amélie-les-Bains.

The Riviera cannot be relied upon in asthmatic cases, but some emphysematous and catarrhal asthmatics have obtained advantage in the summer from moderate elevations like Montreux or Glion, Lugano, Aussee, Reichenhall, and Meran.

Dr. Yeo has found that cases which have been benefited by Folkestone and Eastbourne in the summer have done well at Bournemouth and Hastings

in the winter. He also thinks well of the pine district round Woking, Weybridge, and Ascot. He further urges the necessity of taking care against cold and damp, and cautions the invalid against giving up hygienic measures when he is taking what he may consider a sort of holiday.

Climate for chronic bronchial catarrh.—The ‘milder’ places mentioned under ‘English Mild Climates’ are available, but we may mention especially Bournemouth, Barmouth, Torquay, Tenby and Penzance, the South of the Isle of Wight (The Undercliff), as well as Hastings and St. Leonards.

In considering this point our description of Bath in the October number of this Journal should not be overlooked, for there are many people with whom sea air does not agree.

Directions for patients leaving home for the winter.—Too much importance cannot be attached to the necessity of giving full directions to patients leaving their home for the winter; and if the patient’s medical attendant has not an accurate knowledge of the locality, he should certainly get some local medical man to see the patient and advise him.

This advice may be thought unnecessary, but we know of so many instances where patients have failed to derive benefit from their winter residence in consequence of the neglect of this precaution that we think it worth while to mention it.

‘THE BATTLE OF THE CLUBS’

Under this heading the ‘Lancet’ has been giving a series of articles, which must produce a salutary effect upon the interest of the general practitioners in this country. The article before us (‘Lancet,’ October 12, 1895) reviews the progress of this subject. Combination is urged as the only remedy which will effectually stop the present objectionable struggle between the medical profession and the clubs.

The charge of trade unionism is one which need not weigh heavy on a body of men like the medical profession. The series of articles above referred to shows clearly that we are justified in thinking that the clubs, and some of the public who have no claim to cheap attendance, are dealing with medical men in a way which is ungenerous and unjust. We cannot but approve the conduct of those members of the profession who endeavour by union to resist such treatment.

At Cork, Brussels, Portsmouth, and Eastbourne

efforts are being made by syndicates of medical men to retain their rights. The story of Eastbourne is one which may be taken as an example of what might be done throughout the country. Medical men in this town have had to encounter two big insurance companies, and in defending themselves have formed the Eastbourne Provident Medical Association.

The Prudential Insurance Office, which was one of those referred to above, has acknowledged the calls of the Association by persuading their clients to join it. The three officers of the National Medical Aid Company, working with the Liverpool Legal Friendly Society, have resigned their office, and explained to their patients the advantage of joining the Eastbourne Provident Association.

This distinct victory on the part of Eastbourne is highly satisfactory, and we again congratulate the 'Lancet' upon the assistance it has afforded and is affording members of the profession to overcome the unprincipled attempts made to cheapen their services.

Therapeutics

The administration of drugs to children.—The 'Therapeutic Gazette' for September draws attention to the importance of this subject, quoting Dauchez ('Rev. Internat. de Méd. et de Chi. Pratiques,' May 25, 1895).

The following points are important in reference to prescribing:—

1. That the substances most easily administered are the tinctures and alcoholic extracts, in the form of drops (aconite, digitalis, belladonna, laudanum, &c.), mixed with sweet liquids, as black-currant syrup, Malaga wine, currant syrup, prune juice, orange juice, liquorice, coffee, and sometimes distilled water. Certain powders that are very active may be mixed in small doses with soups which the children take as daily food; thus may be used scammony, bismuth, magnesia.

2. That the elixirs, the biscuits (scammony), the pastilles (lactate of iron), the chocolate (iodides), the electuary (honey and syrup of althaea), mixed with sulphur, with senna ($\frac{1}{2}$ to 2 drachms), magnesia ($\frac{1}{2}$ to $2\frac{1}{2}$ drachms), confections and syrups, can be used in pharmacy to mask the taste of drugs, according to the special liking of the child.

One should avoid using prescriptions containing over 5 drachms, 1 ounce, or 2 ounces; at least, not over this amount should be administered in forty-eight hours to a child of eight or ten years of age.

In prescribing very powerful drugs it is well to avoid danger by prescribing them always in solutions of known percentage.

3. In giving very active drugs to very young children it is generally best to write out the name and amount of the drug fully, and not in figures, and to state at the top of the prescription that it is for a very young child, and that the drops should be counted.

In certain cases where the tolerance and docility of the child are not good, recourse may be had to certain medicaments that are capable of being absorbed through the skin or mucous membranes, such as fumigations of naphthaline, tar, benzoin, carbolic acid, creosote, balsams, resins, &c., inhalations of oxygen, eucalyptol, turpentine, tinct. of iodine, and camphor.

Dr. Lefort has used the following mixture with success in the form of inhalations from a vapour-bath:

R	Pulv. camph.	.	.	.	.	.	.	5x
Oleum picis liquidæ		.	.	.	.	.	3v	
Tr. iodi.		.	.	.	.	.	3v	

Frictions of the following are also useful: mercurial or iodine ointment, turpentine liniment.

Baths of sublimate, sulphurous acid, wine, vinegar, and mustard.

For eczema of hands and fingers. (Unna: 'Monatsh. f. Prakt. Derm.' 19, 1894.)

R	Zinc oxid.	.	.	.	.	40 parts by weight.
Crete preparata		.	.	.	20	"
Liq. plumbi acetatis		.	.	.	20	"
Olei lini.		.	.	.	20	"

The first two ingredients are to be well blended, the last two well mixed, and then the whole to be worked into a paste. Sig.—Zinc paste.

For flatulent dyspepsia. ('Mistura Thomsonii.' Old Materia Medica.)

R	Soda bicarb.	.	.	.	.	gr. xx
Spirit. ammon. arom.		.	.	.	mxv	"
Tinct. cardamom. comp.		.	.	.	mxx	"
Tinct. camphoræ comp.		.	.	.	mxx-xxx	"
Aqua menth. piperit. ad.		.	.	.	5i	"

ft. haust. C. 4tis horis.

Glycerine of iodo-tannic acid for vaginal application. ('Gaz. de Gynæc.' 221, 1895.)

R	Tincture of iodine	.	.	.	.	4 parts.
Tannic acid		.	.	.	4	"
Glycerine		.	.	.	15	"

Dissolve and filter.

To be applied by means of tampons to the cervix uteri, and left in place twelve hours in cases of vaginitis, uterine engorgements, with or without cervical endometritis.

Quarterly Medical Journal, Oct. 1895.

TAKA-DIASETASE

Taka-diastase is the result of a discovery by a Japanese chemist, who, in the course of a research upon fermentations carried out in the brewing interest, found that certain fungi,

such as *Eurotium oryzae*, had the power of producing diastase when grown upon ordinary wheat bran. After germination has proceeded for a sufficient time, the ferment is removed from the mycelium by percolation, and the diastase is precipitated from the solution in a remarkably pure condition.

This discovery is one of great importance, since hitherto the only available source of diastase has been the concentrated extract of malt, which cannot be regarded as a permanently stable solution thereof.

We have carried out a series of tests with the Taka-diastase, comparing it with three of the best-known malt extracts; also with a sample of commercial diastase in powder.

The result of these experiments showed that Taka-diastase was, weight for weight, sixty times the diastasic strength of the malt extracts, and that the commercial diastase had no starch-converting power at all.

In cases of amylaceous dyspepsia Taka-diastase appears to be likely to prove of considerable service. It is a pale buff powder, free from any nauseous taste, and may be taken as a tabloid or capsule. The dose is from one grain, which costs rather less than one halfpenny.

It is manufactured by Messrs. Parke, Davis & Co.

New Apparatus

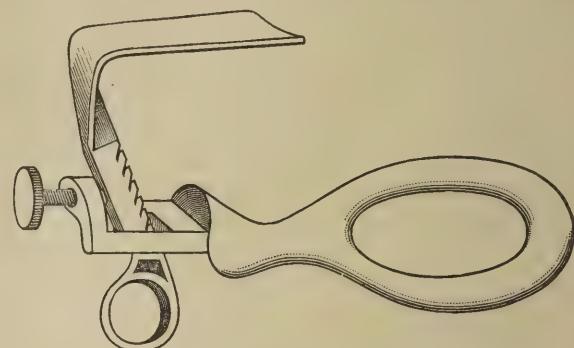
A NEW SELF-RETAINING PERINEAL RETRACTOR¹

By D. TOD GILLIAM, M.D., Columbus, O.

THIS retractor is for the dorsal position. It consists of two parts: the retractor proper, and the holder. The retractor has a short blade and a short handle. The handle is notched on its outer aspect, and has a ring at the extremity. The holder has a large ring at its upper extremity to embrace the hump at the lower end of the sacrum. Below this is a saddle, which conforms to the curve of the coccyx. At the lower end of the holder is a device for coupling to the retractor. It consists of a rectangular slot, which opens on the left side. Near the upper end of this slot, and running transversely across the same, is a steel pin, which fits into the notches on the handle. A thumbscrew at the extremity of the holder, which regulates the inclination of the blade, completes the mechanism. The accompanying cut will give a better idea of the instrument than is possible by a verbal description. It must be understood at the outset that it is not a speculum, as it will not, as a rule, expose the cervix unless the

¹ *New York Med. Record.*

anterior vaginal wall be lifted up or the cervix pulled down. A retractor should have a short blade, that the parts may be drawn down within easy reach. It should not have broad flanges at the vulvar extremity, as this interferes with the free use of fingers and instruments. The experienced operator will at once see the advantages of this arrangement, while the beginner is apt to be disappointed because he cannot at once see the cervix, or because the vulva, in a measure, closes in and obscures the view. In proportion as a retractor is made with long blades or broad flanges, it is spoiled for operative purposes.



Directions: Have patient on her back with buttocks projecting a little beyond the end of the table; push the holder up under the sacrum until the saddle is arrested by the coccyx; the weight of the body anchors it firmly. Introduce the retractor as you would any other, noting the position of the cervix. With one or two fingers of the left hand on the blade of the retractor, and the thumb under the end of the holder, approximate them by pressure. The index finger of the right hand in the handle ring now guides it into the slot and applies the teeth to the pin. By increased pressure of thumb and finger the desired degree of retraction is obtained, and held by the notch and pin. The inclination of the blade is changed at will by the thumbscrew. The cervix or other parts are now caught by a bullet forceps and drawn down toward or outside the vulva. The instrument is simple, efficient, and inexpensive, and takes up but little more room than the ordinary bivalve speculum.

AN ANATOMICAL CYCLE SADDLE

There can be no doubt that some improvement is required in the construction of seats for cycles. Many complaints have reached us of the tiring effect of the ordinary saddle, especially in the case of heavy

riders, and also the painful and harmful effects of perineal pressure. The saddle of which we give illustrations has been devised with a view of meeting these difficulties.

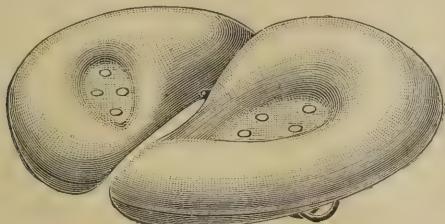


FIG. 1.—THE HENSON SADDLE

Fig. 2 shows the 'Henson Saddle' with the ischial tuberosities *A A* resting in the two depressions in the

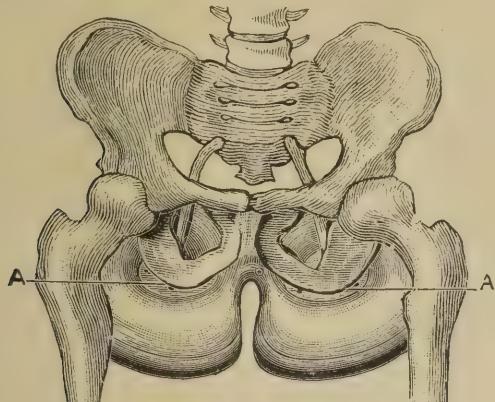


FIG. 2

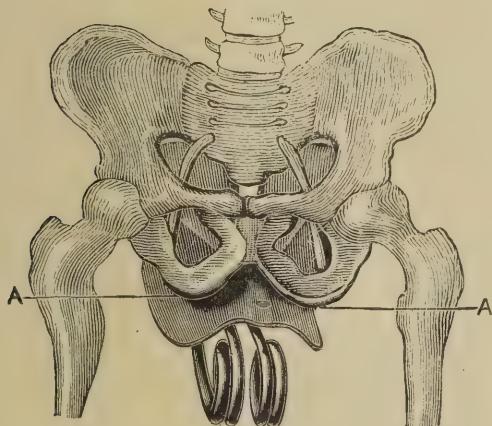


FIG. 3

ILLUSTRATED ABOVE THE BONES OF THE PELVIS ARE SEEN IN SITU

cushions made to receive them. The space between where the peak usually comes is cut out, so that it is impossible to receive pressure there or at bottom of the spine, even when leaning forward.

Fig. 3 shows the same bones on an ordinary saddle, in which the tuberosities *hang over* on either side, the weight of the rider being sustained by the delicate parts between. The heavier the rider, the more wedge-like the saddle becomes, the most approved narrow-waisted saddles being worse than the one illustrated.

We have tried the 'Henson Saddle,' and at first experienced an increase of comfort over the ordinary seat which was very gratifying; but, upon settling down to work, the old objection to pneumatic saddles presented itself. We refer to the unpleasant feeling of heat, although in the case of this saddle it is less noticeable on account of the ventilation which is provided.

The machine upon which we tried it was a sliding-seat bicycle, and we think it very probable that the good qualities of the saddle are more adaptable to the ordinary fixed seat. However, there can be no doubt that the advantages overcome the disadvantages, and although we cannot consider the invention absolutely perfect, it is certainly a step in the right direction, for it undoubtedly affords far greater and more even support to the body than does the ordinary seat. The manufacturers are Messrs. Dunlop & Co., of 20 Beulah Hill, London.

Reviews

The Climates and Baths of Great Britain: being the Report of a Committee of the Royal Medical and Chirurgical Society of London. W. M. ORD, M.D., Chairman, A. E. GARROD, M.D., Hon. Secretary. Vol. I.: 'The Climates of the South of England, and the Chief Medicinal Springs of Great Britain.' London: Macmillan & Co.; and New York. 1895. Vol. I., pp. 640. Price 21s.

At a meeting of the Council of the Royal Medical and Chirurgical Society held on May 14, 1889, Sir Edward Sieveking in the chair, it was resolved, on the motion of Dr. Barnes, seconded by Dr. Ord, 'That a scientific committee be appointed for the purpose of investigating questions of importance in reference to the climatology and balneology of Great Britain and Ireland, and to report them to the Council from time to time: with power to add to their number.'

The first volume, published this year, contains the first report of the committee, embodying the results of three lines of investigation, viz. —

1. The information received from medical men practising in various localities in answer to the letters of inquiry.

2. The results of personal investigation in various localities by members of the committee.

3. The analysis of published and trustworthy statistics regarding the several localities considered.

There can be no doubt, in the first place, that such an undertaking has been long asked for, and it was fitting that the Royal Medical and Chirurgical Society of London should have taken the initiative in meeting the demand that had become imperative; and we may congratulate the committee on this, the first outcome of their labours. In it we find many admirable essays on the physical geography and climatology of the South Coast of England, from the Land's End to the North Foreland.

As to the balneological part of the work, the more important spas of Great Britain are dealt with; and the report contains a valuable collection of water analyses, and some general remarks on the therapeutical uses of the several mineral and hot springs.

Our space will not admit of fully discussing the contents of this volume, which, like all Messrs. Macmillan's publications, is well printed; the map showing the physical geography of the South of England, by Stanford, will be found of great use. If 'imitation is the best flattery,' the author of a well-known work may consider himself flattered by the committee, for they have not only imitated him in giving an orographical map, but have crossed it with isotherms.

We shall confine ourselves to the climates and diseases of the South of England in the following brief remarks we shall make in review of this volume.

Climates.—The committee are much indebted to the Royal Meteorological Society and the Meteorological Office for the valuable collection of meteorological tables that have been brought together; these tables form the most characteristic portion of the volume, and contain the elements of a really important and useful work, when studied in connection with the physical geography and geology of the important region of England under discussion. The meteorological observations mostly extend over ten years, and some over a much longer period. It may be noted *en passant*, that the valuable tables of Dr. Alexander Buchan, M.A., of the Scottish Meteorological Society, have not been used by the committee. This, we think, is an omission which may be rectified in the second volume. These tables embrace the whole of Great Britain, and therefore many stations in the South of England.

Diseases.—The tables showing the prevalence or otherwise of certain diseases in the several localities of the South

of England treated in this volume offer a strong contrast to the meteorological tables; they are quite insufficient for forming an accurate estimate how far any of the localities are fit to receive visitors having tendencies to, or suffering from, certain fatal forms of disease. These tables are mostly limited to Medical Officers of Health Reports for the years 1891 or 1892. From such meagre reports it is impossible to form a just and practical idea of the capabilities of a health-resort as regards the important question whether, whilst its local climate or waters may be beneficial for some forms of disease, it may not be obnoxious to others of a more serious character! In the case of health-resorts we have always considered it necessary, before any opinion is given of its qualifications for such a high and responsible position amongst towns, that the most searching investigation should be made, not only as to its sanitary condition, but as to the prevalent diseases of the immediate neighbourhood that shares its local climate, configuration and soil. For this purpose long series of death records are absolutely necessary, such as those compiled by Dr. W. Farr, C.B., in his supplements for the twenty years, 1851–1870. There is yet time in the second report to introduce his tables, and supplement them by those about to be published by Dr. John Tatham for the more recent decennium, 1881–1890. This will involve much labour, but *nil sine labore*.

We must now conclude this (considering the importance of the work and the labour spent upon it) brief notice with one or two remarks on the geological portion. This is very generally treated, and without a map and sections the description of the formations are hard to follow, except to those who are well acquainted with the geology of the South of England. We have discovered some inaccuracies, but these will in all probability be brought to the committee's notice in time to be corrected in the next volume. Many of the essays are well written and worth a careful perusal, as they are calculated to awaken interest on subjects that are, unfortunately, too little studied by the bulk of our profession. The introductory remarks on the climates of the South Coast of England, by Dr. W. M. Ord, is an admirable specimen, as it is written with a firm hand, having for its guide a sound knowledge of the subject. Dr. William Ewart's essays on the South Eastern Countries is also admirably composed and lucidly written.

After perusal of this important work, few will deny that it is a valuable contribution to the Climatology and Balneology of Great Britain, and will take a high rank in our medical libraries as a book of reference.

CLINICAL SKETCHES

DECEMBER 1895

The Past and the Future of 'Clinical Sketches'

HAVING arrived at the end of the first year of publication of this Journal, we are able to form an opinion as to its past success and probable future prospects. With regard to its success up to the present time, we are more than satisfied, and in respect to its future prospects, we have every reason to consider them most promising. The number of subscribers has continuously increased, and complimentary letters and expressions of approval have reached us from many sources.

We would remind our readers of the objects with which this Journal was commenced. It was with the view of supplying what we thought to be a distinct want; the leading feature aimed at being the production of sketches, not only artistic but literary, illustrative of current medical and surgical literature, printed in large type and on good paper, so that the busy man could read the Journal with facility, even when riding in his carriage.

We have spared neither trouble nor expense in carrying out these views, and we are greatly indebted for help to the co-operation of our publishers, our printers, and our engravers. We think we may claim without boasting to have produced some of the most perfect representations of old engravings of portraits which have ever appeared in print, and this could only be done by the utmost care in the selection of subjects, efficient reproduction, and the most careful printing.

The necessity for this great care has led to the delay of a few days in bringing out some of our

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numbers; and we must ask for indulgence in this matter even in the future. Every effort will be made, however, to bring out each issue punctually, but we have given instructions to our printers to incur any delay rather than hurry the printing at the sacrifice of good results.

We take this opportunity of thanking those friends who have helped us in this work. We also thank those of our contemporaries who have so kindly given favourable and encouraging notices of the Journal from time to time.

In the future we propose not only to endeavour to maintain the good reputation which we hope 'Clinical Sketches' has achieved, but to try and improve its pages. Special departments are being gradually organised, these being conducted in a form somewhat different from the usual plan. They will form a combination of the current literature of the subjects dealt with, elaborated by original observations on the part of the editor of each department.

Reduction in Price

From the very first we had looked forward to the time when this Journal could be issued at a smaller price than one shilling per copy, and we are glad to say that its success warrants that alteration being now made. At the commencement of the new year 'Clinical Sketches' will be issued at half its present price.

NOTES BY THE EDITOR

The Royal Society.—That Sir Joseph Lister should have been selected as the new President of the Royal Society, in place of Lord Kelvin, who retires, will not only be satisfactory to his professional brethren, but also, there can be little doubt, will be popular with the public.

In departing from its usual custom by electing a practising surgeon to be president the Royal Society has made a wise choice, for no one of to-day can be better fitted for this honour than Sir Joseph Lister, whether as a scientist, as a man of dignity, or as a strong leader of men. He is eminently fitted to conduct the business of the Society, and to lend lustre to its records.

It is almost needless for me to refer to the past work of Sir Joseph Lister; it is, as regards antiseptic surgery, already a matter of history. But I may mention his Croonian Lecture on 'Coagulation of the Blood,' in the 'Proceedings of the Royal Society,' his paper in the 'Philosophical Transactions' in 1859 upon the 'The Early Stages of Inflammation,' 'The Germ Theory of Fermentative Changes,' in the 'Transactions of the Royal Society of Edinburgh' in 1875, and 'Lactic Fermentation and its Bearing on Pathology,' in the 'Pathological Transactions' in 1878, and later still his 'Principles of Antiseptic Surgery,' 'Virchow's Festschrift' of 1891.

I cannot pass over the excellent speeches which were made at the Anniversary Meeting of the Royal Society on the last day of November without noticing the remarks made by Sir Joseph regarding Pasteur. Pasteur was explaining a fact of great physiological importance. It could only, said the speaker, be demonstrated upon a rabbit. 'A small incision was made. It was an operation involving really but little pain, and he well remembered M. Pasteur's exclamation, "*Pauvre bête!*" From that he derived the impression that M. Pasteur was a man of tender heart, and that impression had been confirmed by all that he had known since of him and his career. Little did those imagine who lightly spoke of M. Pasteur as cruel because some of his most beneficent work had required experiments upon animals—experiments which, if the truth were known, involved but little suffering—how benevolent and humane a man it was whose character they thus ignorantly and lightly traduced.'

General Medical Council.—The winter session commenced on Tuesday, November 26, under the presidency of Sir Richard Quain, who continues to fill this capacity with as much vigour and ability as he has ever shown, notwithstanding his advancing years. It was announced at the meeting that the new 'Pharmacopeia' is making progress, 'some portions of the work having been already set in type, printed, and placed before the Pharmacopœia Committee.' This statement reads to me as if it would yet be a long time before the new edition will be completed.

It is satisfactory to see that the Council has obtained the co-operation of such able 'referees' as the following: in pharmacology, Dr. Lauder Brunton, Professor Fraser, and Dr. Walter Smith; in chemistry, Dr. Thorpe, Professor Tilden, and Professor Emerson Reynolds; in botany, Mr. Thiselton-Dyer and Mr. Holmes.

Irregular practice.—The President congratulated the Council upon the fact that there was only one case of 'covering' before them on this occasion, showing, he thought, that the action of the Council in dealing energetically with 'this obnoxious system' was steadily putting an end to it.

I hope this opinion will prove correct; but while the machinery for getting at this and other kinds of irregular practice is so conspicuous by its absence as at present, we can hardly look for a quite satisfactory result, even from the determined action of the Medical Council in cases which happen to come before them.

A remedy.—I am assured that very many members of the profession still suffer from the evils of irregular practice; I will, therefore, suggest the following remedy. It consists in the organisation of a body of men to inquire into cases of supposed irregular practice, and, when necessary, to bring them before the notice of the proper authorities, whether these latter be the licensing bodies, the General Medical Council, or the police.

It is obvious that the General Medical Council cannot undertake this work. It cannot carry out at the same time police as well as magisterial duties, and it therefore devolves upon some independent body to organise a 'court of inquiry' to deal with the abuses complained of.

A Society for the Abatement of Irregular Medical Practice might be instituted, with paid officers, including legal advisers. The objects of such a society

should be to inquire into any supposed irregularity of practice brought before it, and when it considered it necessary to formulate the facts of a case and lay it before the necessary authorities.

Absolute prosecution should not be undertaken by the society, except at the expense of the individuals interested, who might wish such a course to be taken.

The suggestion is undoubtedly very crude, and would require elaborating, and probably modifying, before it could be adopted; but a scheme of this kind, it seems to me, would meet many of the difficulties which now exist in repressing irregular practice.

The British Medical Association, being the largest organised body of medical men which exists, is probably the most suitable body to take up this subject, and although difficulties lie in the way of this Association undertaking the prosecution of delinquents, I see no reason why it should not form such a committee as I have referred to.

The care of epileptics.—The new home of the National Colony for Epileptics at Chalfont St. Peter was opened on November 26 by the Duke of Devonshire, and there was a numerous and influential attendance.

No one can question the benefits likely to be conferred on a large and unfortunate class of sufferers by an institution of this kind, and the extension of its advantages to women and children is deserving of all support and encouragement. Mr. Passmore Edwards has been the principal benefactor; but we must not forget that the initiation and carrying on of the scheme is the work of the executive committee, which includes the names of several well-known members of the medical profession and their wives.

Kak-ke.—In referring in November to the disease the disappearance of which from the Japanese Navy concurred with the introduction of meat into the diet, and other hygienic measures, a misprint occurred. The name of the disease in Japan is Kak-ke, a term synonymous with the more familiar Beriberi of Indian writers.

This disease is an endemic and specific form of multiple peripheral neuritis prone to occur in conditions of overcrowding, dampness, and deficient dietary such as are met with in the ships of Eastern countries, and particularly in years past in the Japanese Navy, where at one time, before the hygienic reforms alluded to were introduced by Takaki, about one-third of the entire personnel was annually affected with the disease.

I heartily congratulate Dr. Handfield-Jones upon the successful termination of his action against a former patient. It seems that some persons have yet to learn that they cannot demand the services of any medical man if he does not wish to give them, and that the law will not allow them to molest and threaten him for a supposed grievance of this kind.

Original Papers

THE TABETIC FOOT

By R. SHINGLETON SMITH, M.D., B.Sc., F.R.C.P.,
Physician to the Bristol Royal Infirmary

THE two photographs (figs. 1 and 2) are excellent illustrations of the tabetic foot and perforating ulcer of the same.



FIG. 1

They are from a typical case of tabes dorsalis; ten years ago the patient had the high-stepping action well marked, now he is unable to stand.

It will be noticed that the perforating ulcer is on the outer side of the right foot, and not upon the sole; this is accounted for by the fact that, in consequence of talipes, the foot has been turned on the side in walking, and hence the ulcer is in what is only apparently an unusual position, inasmuch as the side of the foot has been acting as the sole.

The paralytic dropping of the great toe and the extensor contraction of the other toes are well shown in both photographs.



FIG. 2

The other points noticed are the great transverse thickening of the ankle joint, flatness of the foot, and the presence of a small ganglion at the inner ankle.

NOTES AND SKETCHES MADE DURING A TOUR THROUGH GREAT BRITAIN

By ALFRED HAVILAND

Author of the 'Geographical Distribution of Disease in Great Britain'; late Lecturer on the Geography of Disease at St. Thomas's Hospital, London, &c.

III.¹ (*continued*).—THE TWO CHALK BELTS OF THE THAMES, AND THEIR INFLUENCE ON THE MORTALITY FROM CANCER

PART II.

Description of the two Chalk Belts

The Upper Chalk Belt.—If my map of cancer distribution among females, at all ages (1851–1860),² be

¹ 'Notes and Sketches' I. and II. appeared in the October, 1895, number of *Clinical Sketches*, pp. 101–105, and Part I. of the present 'Notes,' &c., in that for November, pp. 135–137.

² Baillière, Tindall, & Cox, 20 King William Street, Strand, W.C.

examined, it will be found that the Thames, after traversing the Wallingford registration district in a southerly direction, crosses the north-easterly part of Bradfield to the south-east, where it lies between the Reading and Henley districts; at which point it takes a northerly course through the latter district, where, just below Henley-on-Thames, it turns suddenly to the S.E., and then runs between Cookham and Wycombe in an E.N.E. direction, until it becomes the boundary between the former district and Eton, where it suddenly turns to the S.S.W., and then to the S.E., separating Cookham from Eton and Windsor, thus forming a complete loop embracing the southern portion of the upper chalk belt on three sides, and forming the base of its northern portion, the registration district of Wycombe.

Mr. Whitaker,¹ in one of the works referred to, tells us that near Sonning the Thames leaves the direct course along the foot of the Tertiary escarpment (towards Maidenhead) and makes a sharp northerly turn, somewhat against the direction of the dip, to beyond Henley, and in consequence of this the bottom part of the valley is again cut down into the lower chalk.

From Remenham the river makes a second sharp turn, when it flows east for some miles to beyond Little Marlow (Cookham), and then a third, after which it flows south to Bray (Cookham), where it for the first time runs over Tertiary beds (London Clay, &c.). The above course, which may be roughly described as three sides of a square, seems really to follow the line of a former Tertiary escarpment; for the two well-marked wooded hills between Wargrave and Maidenhead (Cookham) (the gently rising, conical form of which can be clearly seen from so far as Richmond) are parts of a large outlier, now barely separated from the main mass of the Tertiary beds at Ruscombe, and there are smaller outliers round about, all of these being proofs of the former extension of those beds over the chalk. In this tract there are fine examples of river-cliffs, or slopes, notably on the right bank from Wargrave to Henley, and opposite Great Marlow (Wycombe), and on the left bank from Hedsor (Wycombe) to Taplow, including the grand sweep of Clivedon. Clothed sometimes only with evergreen turf, but more generally with mighty masses of beech, these great chalk slopes form some of the finest scenery in the South of England, their sharpness being set off by the tranquil river at the base and by

¹ 'Geology of the Valley of the Thames,' Dickens's *Dict. Thames*, p. 73.

the level tract of marshland or the nearly level spreads of gravel in the bottom of the valley.

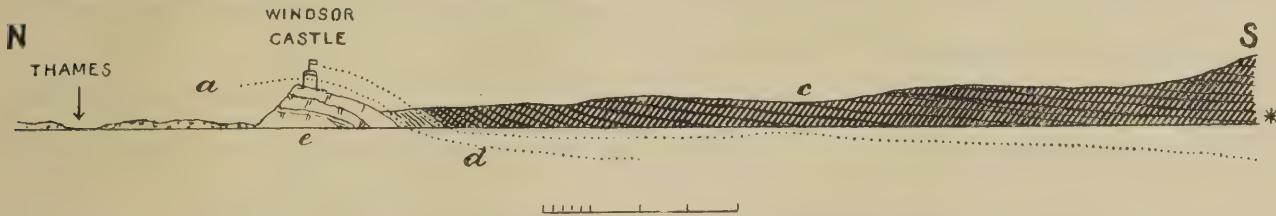
Below Maidenhead the character of the valley changes; the river, Mr. Whitaker says, has entered the Tertiary (London Clay) district, and therefore, instead of having cut a channel with high slopes, as in the firmer chalk, it has made a broad vale through the more yielding and more easily denuded clays and sands. At Windsor, where the chalk comes to the surface through an elevation of the beds (by means of which it has been brought up within reach of eroding agents), it has been cut through by the Thames, which has left a good example of a sharply sloping river-cliff in the hill on which the Castle stands. This cliff, though of no great height in itself (about 100 feet), forms a marked object in the landscape, because its abruptly denuded face is in sharp contrast with the river flat and the gravel plain on the north (Whitaker).¹

last time along the edge of the marsh at East Tilbury (Orsett). Then the Lower London Tertiaries have an exceptionally broad outerop (much hidden by gravel) to the higher ground of Orsett, and are finally lost sight of at Standford-le-Hope (Orsett), beyond which this side of the valley consists of London Clay, capped by a mass of Bagshot Sand round Hadleigh.

On the south, below Erith (Dartford), where the Darent joins the Thames, the valley is in chalk with a large Tertiary outlier above, forming the wooded mass of Swanscomb Park Hill, besides smaller outliers, the most marked of which is Windmill Hill, Gravesend. In this neighbourhood there are huge chalk-pits near the edge of the marshes, as also, on the opposite side, at Purfleet and Grays (Orsett).

Within these well-defined belts we thus find that chalk is the prevailing rock in the low mortality districts composing them; and, further, we should discover were we to extend our inquiries to the districts

SECTION ACROSS THAMES GRAVEL, CHALK BOSS, READING BEDS, AND LONDON CLAY, AFTER W. WHITAKER, B.A., F.R.S., F.G.S., &c.



Horizontal scale, 2 inches to a mile. Vertical scale about four times as great (1 inch = 660 feet).

a, Gravel of the Thames. c, London Clay. d, Reading Beds. e, Chalk. * Approximate level of the Thames.

The Lower Chalk Belt.—The course of the Thames in this case is very simple compared with what we have just seen it to take between the northern and southern portions of the upper belt. From Purfleet (Orsett) to Greenhithe (Dartford) the river takes almost a straight course in a S.E. direction, and then makes a small curve northwards towards Grays (Orsett). Mr. Whitaker remarks with regard to this belt below Erith (Dartford), that here the Thames leaves the Tertiary beds, and the chalk again rises to the surface. On the north it appears at Purfleet (Orsett) and forms the hill, thence to Grays Thurrock (Orsett), with small but well-marked outliers of Thanet Sand on the top; whilst from a local northerly dip the Tertiary beds (London Clay, &c.) come on above the chalk in the small tributary valley to the north; and they then spread out over the hill eastward to Little Thurrock (Orsett), just east of which place the chalk sinks below the surface, to appear again for the

through which the river cuts its way in the chalk, as Wallingford and Bradfield, that comparatively low death-rates prevail until we reach Reading, where the oft-flooded London Tertiaries are coincident with an unusual death-rate of 25.59 among females at and above thirty-five years of age to every 10,000 females at that age-period living during 1851–1870; a remarkable contrast to the mortality along the upper chalk belt, which only amounted to 13.82, notwithstanding the floods at certain seasons, which water-log chalk and clayey land alike. What the influence of chalk is upon the undiscovered factors associated with the cause and prevalence of cancer has not yet been discovered; but we do know that, where floods water-log clay and other soils allied to them, there is to be found the highest mortality from cancer, especially amongst females; we also know that, throughout Great Britain, wherever limestones characterise the geological structure of a district, within such areas the death-rates from cancer are reduced. Now, chalk is a lime-

¹ Guide to the Geology of London, 5th ed., p. 30.

stone, and so is much of the *oolite* through which the Thames cuts its early course, where the death-rate was only 13·24. Fortunate is it, indeed, that, by a series of earth disturbances which resulted in the formation of the Chiltern Hills, the North and South Downs, the hollowing of the Thames trough, and the arching up of the Weald, the chalk rocks should be brought from beneath the London clay and its once flat, extensive area, stretching at least from Norfolk to the Isle of Wight, to counteract some of the many evils that flooded clays are prone to inflict upon those who dwell upon them.

The clays and other geological formations we cannot remove, but surely the more mobile river waters are as amenable to the engineer's skill in England as the Head Master of Eton College tells us they are in France. The Thames floods, of which, with so much reason, the Rev. Dr. Warre bitterly and justly complained at a late meeting at Windsor presided over by the Mayor, are becoming year by year more intolerable, not only on account of the discomfort and the loss of money that follow in their train, but of their detrimental influence on the public health, and of the hard facts accumulated during the twenty years 1851–1870, that they are invariably associated with the highest death-rates in England from cancer. From this disease we know that both Windsor and Eton, during the above period, had death-rates above the average for England, and that during 1861–70 in the Windsor district it increased to 20·58 to every 10,000 females living above the age of thirty-five years; for, although we may stand within the royal borough on the *chalk boss*, on which the Castle stands (100 feet), we look down upon the Thames to the north and a wide and oft-flooded area to the south consisting of a small tract of Reading beds at the foot of the hill, and beyond it nothing but London Clay. Well may it be asked, and the question has over and over again been put to me—'Is it probable that these floods should have a baneful effect on the future health of those educated in their midst?' ¹

Windsor since 1861 has had reason to remember many a sad death from a cause that seems strangely associated in our country with floods. (See p. 183.)

¹ The reader will be greatly aided in following the course of the Thames through the several geological formations above described by consulting the excellent Geological Atlas of Great Britain from the Government Survey, &c., published by Messrs. James Reynolds & Sons, 174 Strand, W.C. The county maps of Bucks (2) and Berks (3) for the Upper Chalk Belt; and those of Essex (13) and Kent (17) for the Lower Belt, contain the upper and lower chalk belts of the Thames.

THE SURGICAL TREATMENT OF HYPER-TROPHY OF THE PROSTATE GLAND

BY J. ERNEST LANE, F.R.C.S.

Surgeon to Out-Patients and Lecturer on Anatomy, St. Mary's Hospital; Surgeon to the London Lock Hospital.

Of recent years great advances have been made in the treatment of hypertrophy of the prostate gland and the urinary troubles consequent thereon, so that the subjects of this disease, instead of being condemned to 'catheter life,' with its accompanying risks and disadvantages, are now enabled to resume the normal function of micturition by means of operative measures which in themselves are not attended with any great risk.

The operative treatment of enlarged prostate resolves itself into two procedures, which, though they differ widely from one another in 'technique,' eventually accomplish the same object; that is to say, they rid the patient of the obstructing agent, and enable him to perform the act of micturition without any difficulty.

It is hardly necessary to point out that only a very small proportion of cases of enlarged prostate will require to be treated by operation, for the majority suffer little, if any, inconvenience therefrom, and merely require to be careful in their diet and in their potations, and to avoid exposure to cold or damp. In this communication I propose to allude to the unfortunate minority, whose life is rendered a burden and whose health is gradually being undermined by constantly recurring attacks of retention of urine and of cystitis, with its ultimately inevitable concomitant, surgical kidney.

Nearly ten years ago the late Mr. McGill advocated the operation of prostatectomy in intractable cases of prostatic hypertrophy, and until two years ago this was the only recognised means of getting rid of the obstruction; but, in 1893, Prof. J. W. White, of Philadelphia, suggested that in inveterate cases double castration should be employed, a revolutionary measure which was at first regarded with marked antipathy by a considerable proportion of the surgical profession, but one which at the present time seems to be fully justified by the large number of successes attributed to it. My personal experience of these operations is at present insufficient to warrant me in recording my results, and since the object of this communication is to compare and contrast the relative merits of prostatectomy and double castration, I am of opinion that a reference to the writings of some of the pioneers of these two

methods will best serve the purpose I have in view; I propose, then, to select cases typical of each operation recorded by surgeons whose experience entitles their opinions to the greatest respect.

Prostatectomy.—The most ‘up-to-date’ description of this procedure is to be found in an article by Dr. Eugene Fuller, of New York, entitled ‘Six Successful and Successive Cases of Prostatectomy’ (‘Journal of Cutaneous and Genito-Urinary Diseases,’ New York, June 1895). He first carefully washes out the bladder, and then distends it moderately with from eight to twelve ounces of fluid; the bladder is then opened by the usual suprapubic method, and the locality and extent of the prostatic obstruction are ascertained by the introduction of the left forefinger into the vesical cavity. With the right hand a pair of rough, serrated-edged scissors with a long handle are slipped along the left forefinger to the urethral opening, and are made to cut through the bladder wall in that region; the cut extends from the lower margin of the internal vesical opening of the uretha backwards for an inch to an inch and a half. The forefinger is slipped through the hole thus made in the bladder, and, by means of counter-pressure against the perineum, the prostatic growth is brought well into the reach of the finger, by which it can be enucleated either *en masse* or piece by piece. A perineal section is then made and a soft rubber tube is passed through the perineal cut, and through the vesical opening made in the course of the operation. After hot-water irrigation, the suprapubic wound is closed by two layers of cat-gut sutures, a deep one for the bladder wall and a superficial one for the abdominal parietes, leaving a small aperture for the temporary introduction of a suprapubic drainage tube.

Dr. Fuller relates the history of six consecutive cases of this operation, all of which were attended with success. It is not necessary to detail any of these cases; suffice it to say that in every instance the urine was passed naturally and at normal intervals after the operation, whereas previously all these patients presented the usual symptoms of complete urinary obstruction, some of them in an aggravated degree.

Double castration.—In a paper read before the American Surgical Association in 1893, Prof. J. W. White first threw out the suggestion that removal of the testicles might possibly be followed by a shrinkage of the enlarged prostate. Arguing upon the analogy between uterine fibro-myomata and prostatic overgrowth, he formulated the idea that castration would have the same effect upon the latter con-

dition as oophorectomy had upon the former. He instituted a series of experiments on dogs, and found that castration was invariably and also rapidly followed by atrophy, first of the glandular and then of the muscular elements, and by a coincident reduction both in bulk and in weight. At the time when Professor White made this communication he had not attempted the operation on the human subject; but since that date he has had frequent opportunities of putting his theories to the test, and in the present year he has been enabled to collect the records of 111 cases of double castration performed by himself and others for the relief of sufferers from prostatic hypertrophy, in which series of cases there were 20 deaths—not a large mortality considering that the patients upon whom the operation was performed for the most part submitted to it as a *dernier ressort*. The operation has almost invariably been followed by a marked diminution in the size of the prostate, by a subsidence of the cystitis, by disappearance of the residual urine—in short, by the conversion of a previously miserable existence into one of comparative comfort. In this country the operation has been performed frequently by Mr. E. Hurry Fenwick, who, in the ‘British Medical Journal’ of March 16, 1895, brought forward eight cases, in all of which the result was more or less satisfactory. Mr. Fenwick came to the conclusion that double castration would prove of value in the following conditions:

1. ‘In reducing bulky overgrowth of the lateral lobes of the prostate. It may be found that the small, tough, fibrous median or lateral vesical outgrowths will be better removed by suprapubic prostatectomy.

2. ‘In controlling the distress and danger of an inflamed senile enlarged prostate.

3. ‘In lessening the frequency or difficulty of introducing the catheter in advanced or confirmed catheter life.

4. ‘In avoiding the mechanical difficulty of crushing a post-prostatic or a post-trigonal stone, by leveling the base of the bladder, thus rendering the operation of litholapaxy feasible in a condition in which before it was impracticable.

5. ‘In reducing chronic cystitis and recurrent phosphatic calculus in cases of confirmed catheter life.’

In a paper read before the Philadelphia Academy of Surgery in 1894, Dr. Ewing Mears suggested ligation of the spermatic cord as a milder alternative to the somewhat drastic remedy of double castration. This operation, he considered, would yield exactly the

same result as the more severe measure, and would be more readily acceptable to the majority of patients; he further opined that the gradual disappearance of the sexual function would not be so liable to disturb the mental condition of the patient if the testes were preserved.

As far as I am aware this procedure has not been adopted sufficiently often to enable anyone to pronounce upon its efficacy; it certainly is not open to many of the objections which might be, and have been, urged against double castration. But it might be urged that, if all the constituents of the spermatic cord were embraced by the ligature, gangrene of the testicle would very possibly follow, and would be predisposed to by the age of the patient and by the lowered vitality induced by his disease. If, on the other hand, only the vas deferens were divided or ligatured, the function of the testicle would still remain, and the secretion of that organ, though, possibly, owing to the age of the sufferer, small in quantity, would accumulate, and give rise to discomfort and even distress.

In comparing the two methods under consideration, the element of danger to the patient is the first and foremost which will present itself. It cannot be denied that suprapubic prostatectomy is a far more serious and more dangerous procedure than double castration, and that many cases are met with in which the former measure would be subjecting a patient to an unjustifiable risk, which might possibly be avoided were the latter plan to be put into execution. On the other hand, the majority of patients will be averse to the severe mutilation of double castration, even though they have reached a time of life when sexual intercourse is no longer feasible; still, most men, even at that age, will entertain sentimental objections to the loss of their testicles, and will willingly run the risk of the more serious operation rather than submit themselves to such a deprivation. Moreover, castration cannot bring about such a complete cure of the condition as must the efficient removal of the cause of the obstruction; and it is quite open to argument whether the tough and fibrous enlargements of the prostate frequently encountered will be affected by castration, as the soft and succulent forms undoubtedly are. Finally, though the operation of castration is simplicity itself, yet, notwithstanding the most stringent antiseptic precautions, suppuration often takes place in the stump of the cord. On the other hand, prostatectomy, though more certain, is more difficult and more dangerous, and may be at-

tended by severe and intractable haemorrhage, by shock, sepsis, cellulitis and uræmic poisoning, while there is, further, the possibility of a fistula remaining at the seat of the suprapubic incision.

A SANITARY GARDEN

It will be within the recollection of most of our readers that, during the meeting of the British Medical Association in London, Dr. Poore invited a large number of members of the Association who were specially interested in sanitation, together with the local sanitary authorities (chairmen of District and Parish Councils and others) to view his garden at Andover. We are glad to lay before our readers an account of the garden, together with plans and illustrations.

It should be stated that the garden is close to the centre of the town of Andover, in Hampshire, and that Andover is the chief town in West Hants (a purely agricultural district), and contains about 6,000 inhabitants.

The garden abuts on a street and lies very low, being only two or three feet at most above the average level of the river Anton, which forms one of its boundaries.

The interest of the garden lies in the fact that it has been manured for the last ten years with the excreta and other refuse of some twenty cottages, the

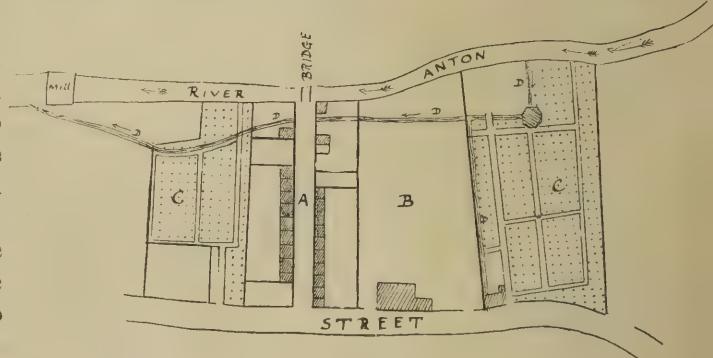


FIG. 1

A, cottages; B, house and garden (let for a girls' school); C, C, garden ground used for sanitary purposes, measuring (exclusive of grass and paths) about $1\frac{1}{3}$ acres; W, well; D, D, D, D, D, D, small stream, supplied partly by springs and partly from river.

only stable dung which has been used having been sufficient to make a hot-bed in the spring, and no more.

The plan (fig. 1) shows the position of the cottages, which form a *cul de sac* running from the street to the river, and also the position of the garden ground. This ground, which is on both sides of the cottages, measures, exclusive of paths and turf, about one and a quarter acre. Nearly an acre of the ground has, together with a house, been let for a girls' school, and in the cultivation of this piece Dr. Poore has no authority.

The cottages are fitted with 'pail closets,' with the exception of one only, which has a 'dry catch,' which is much superior from every point of view to a pail closet, and in course of time it is hoped that all the closets will be converted into 'dry catches,' of which more will be said hereafter. The contents of the pails are removed every morning, and are *superficially* buried in a furrow such as a gardener makes when turning up the ground with a spade. Dr. Poore insists that the covering of the excreta cannot be too light, as it is essential for the due humification of the organic refuse that the air have access to the pores of the soil; and he further says that when the pores of the soil are sealed up by drenching rains, as was the case in the autumn of 1894, the process of humification is delayed, but most certainly the excreta are not (owing to their sticky, glutinous nature) washed out of the soil by the heaviest rains experienced in this country. The method of superficial burial has this further advantage, that the tillage of the soil and the burying of the excreta are carried on by a single operation. As the cottages are close to the garden, the process of removing and burying the contents of the pails is done in less than an hour. Directly this has been accomplished, in the early hours of the morning, there is an end of anything which can offend either the eyes or the nose.

The garden is in great contrast to an ordinary sewage farm. It is used as a pleasure, and its luxuriant herbage and bright colouring are very beautiful. At the time of the visit, in August, the ordinary garden crops showed great exuberance of growth, and the summer fruit trees (apples, pears, peaches, and nectarines) were hung with a very bountiful crop of fruit.

The illustration (fig. 2) shows the central green path of the garden, and although the rich colouring of the tritomas, gladioli, stocks, phloxes, asters, lobelias, calceolarias, roses, and dahlias, cannot be reproduced, the illustration will serve to give some idea of the general luxuriance. Dr. Poore claims to have proved (all chemical analyses to the contrary notwithstanding)

that human excreta have a very high manurial value, and this will be borne out by an examination of fig. 3, which is a reproduction of the frontispiece of the second edition of 'Essays on Rural Hygiene' (Longmans, 1894), and represents the 'exhibit' at the local flower show in 1893. It will be observed that the centre of the picture is occupied by a flowerpot marked in inches, which serves as a sure gauge of the size of the fruits, flowers, and vegetables.

It may be well to point out that this picture (which



FIG. 2

is from a photograph) embraces cabbage, beetroot, turnips, parsnips, carrots, potatoes, cucumbers, vegetable marrow, apples, pears, peaches, nectarines, and plums; in short, all the usual autumn garden products. The summer produce—currants, gooseberries, strawberries, raspberries, peas, beans, &c.—are not less luxuriant. This fact, of course, is again in great contrast to a sewage farm, upon which, owing to the drowning of the humus with water, only a very limited variety of crops can be grown (Italian rye grass, with mangel and cabbage occasionally). This garden shows no signs whatever of being overdone

with excrement. It takes just four years to go over the whole ground in the manner described. The first crop is always of the cabbage tribe, as these are the only vegetables which flourish in the fresh material *with certainty*, although other crops may

always returned to the soil with scrupulous care. That organic manure used in the way which has been described produces a fertility which extends over four years at least there is little room to doubt.

In the centre of the garden is a shallow well, which has been made mainly for experimental purposes and for ascertaining whether the method of disposing of excreta which is practised endangers the purity of the water. This well has been made with considerable care. It is lined throughout with large concrete pipes jointed with cement, and further protected on the outside by a layer of cement concrete. It has a good parapet and well-fitting cover, so that no water can enter it *except through the bottom*, and all water from this well must have filtered through a stratum of earth equal to the depth of the well. The well is five feet deep and the water stands in it at a depth of 3 ft. 6 in., and, so far, both chemical and bacteriological tests have given evidence of a very exceptional degree of purity. Surface wells are unsafe, as a rule, because of their liability to pollution by neighbouring sewers and cesspools; but with the well in question there is no such danger. The water is clear and pleasant, and in the four years that have elapsed since its construction there has been no accumulation of mud at the bottom, the stones remaining as visible now as they were four years ago, and the lining of concrete tubes appears still to be absolutely clean. The well is easy of inspection, and in this lies its great safety as a source of water supply. If it be possible to obtain a safe supply of water from the same garden in which excreta are deposited, this must lead to a great saving of money, to say the least, and must enlarge the area from which safe water can be obtained.

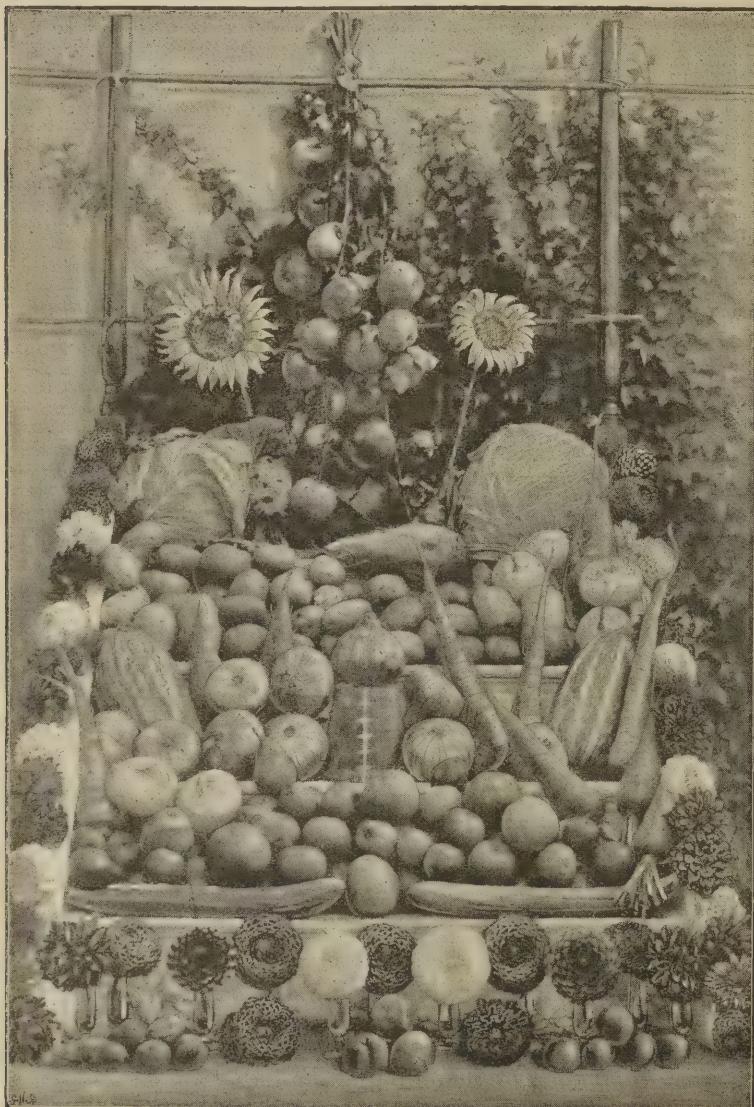


FIG. 3.—SOME RESULTS OF RURAL HYGIENE.

The flower-pot in the centre of the picture is marked in inches, in order to afford a correct notion of the size of the fruits, vegetables, and flowers.

occasionally do well. When the cabbage crop has been harvested, the ground will grow anything; and it must be borne in mind that the vegetables shown in the picture (with the exception of the cabbages) have been produced without any immediate addition of manure other than the ordinary garden offal, which is

been let for a girls' school, and which is almost unique in having neither sewer, nor cesspool, nor trap.

There are attached to this house three 'dry-catch' closets, of which one is approached from the first-floor of the house.

From the garden Dr. Poore's guests were next taken to the house, which has

This closet is shown in section in fig. 4, and it is necessary to state that it is separated from the main

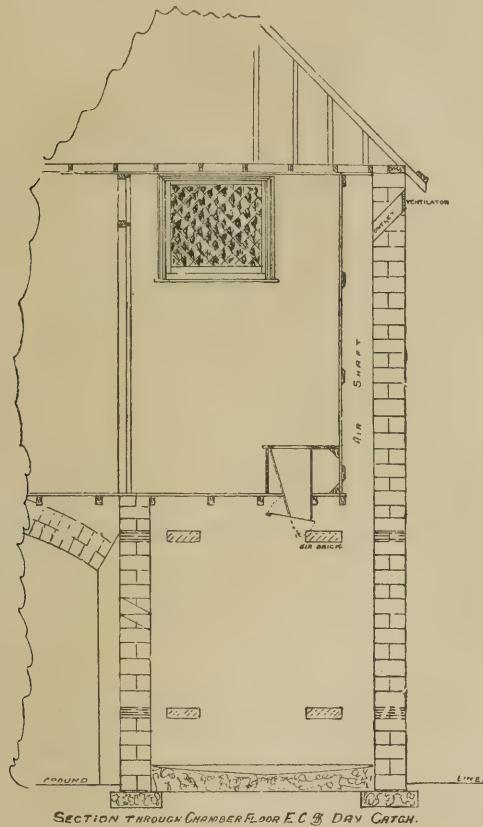


FIG. 4

structure of the house by a ventilated lobby, which is supported on an arch which forms the approach to the stableyard. The 'dry catch' is beneath the closet, and is provided with many air bricks to insure thorough ventilation. The floor is concreted and slopes gently towards the door, which has a space of one inch between the bottom and the sill and opens outwards. Any excess of urine thus flows away, and, if necessary, some earth may be thrown against the sill to absorb excess of urine. As a matter of fact, there is very little evidence that any urine flows away, the whole of it being absorbed by the excreta and the earth which is added.

Fig. 5 shows the details of the closet seat and pan. The seat is only 14 inches high, which is a most important detail, because the comparatively low seat insures that the dejecta drop directly downwards, and thus all risk of soiling the back of the pan is avoided. The bin for the earth is on the left-hand side of the seat, and is filled by means of a hopper accessible

from outside, and so placed that the person who fills the bin and any chance occupant of the closet cannot come within sight of each other.

The earth is thrown into the pan by means of a scoop having a handle 18 inches long, which serves also to clear the pan should occasion require it. An earth-closet constructed on this principle insures (1) that the receptacle is never away from the spot where it is needed, and (2) that there is no traffic through the house with either earth or dejecta.

The pan is fitted at its lower end with a flap which opens and shuts automatically by means of a counterpoise, and thus the dejecta drop out of sight and all up-draught is prevented. The flap works freely in a slot, and can be easily unshipped and cleaned. These pans are made by Mr. W. S. Righton, 376 Euston Road, N.W.

The dry catch of this closet, at the time of the visit of the British Medical Association, had intentionally not been emptied for a fortnight, in order that the visitors might see for themselves that the free exposure to the air to which the excreta were subjected insured that they were perfectly inoffensive.

SECTION OF PAN
FOR DRY-CLOSETS

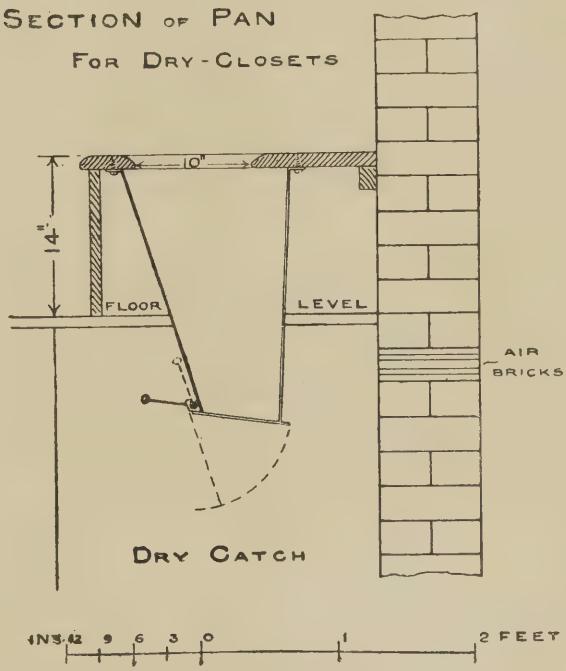


FIG. 5

When excreta are dealt with by dry methods, there is no longer any necessity for taking slop-water under ground. All the slops of this house are allowed to run away in open gutters to a spot within a few feet

of one of the little streams, to which they find their way through a channel which has been dug out and filled up with brickbats and rubbish to form a filter. The kitchen slops are dealt with on a novel plan. The sink is raised on a platform, and the waste-pipe terminates on the outside wall at a height of 2 feet 6 inches from the ground. This waste-pipe is fitted with a reversible nozzle, and between this nozzle and the open gutter along which the slops ultimately run is interposed a filter made of concrete and filled with pebbles and brick rubbish, varying in size from a marble to a walnut. This filter is in duplicate, so that if one side gets foul the nozzle can be turned to the other side, and the foul half be emptied and recharged. The stones removed, if left exposed to the air and the rain, soon cleanse themselves, and in a few weeks may be used again in the filter.

The filter is fitted with a cover of fine wire-netting to stop back the bigger particles of refuse, and it is advised that a sink basket should also be used to

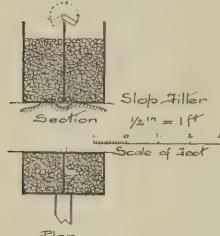


FIG. 6

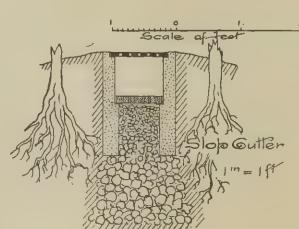


FIG. 7

further insure this desirable end. The filter at the time of the visit had been in use for three months without cleansing, and was without any offensive smell.

This filter is shown in section in fig. 6. The bedroom slops are allowed to flow into a gutter of special construction, which is shown in fig. 7. This gutter is formed thus. A channel about two feet deep is first of all dug and filled up with porous rubbish to within about nine inches of the surface. Upon this concrete walls (about three inches wide) for the gutter are constructed, and upon the top of the rubbish perforated tiles (similar to those used in a malting kiln) are laid. The top of the gutter is fitted with a grating, and on either side of it privet bushes are planted, with the double object of absorbing the moisture and of ultimately hiding the gutter. The object of the perforated tile is to allow the water to soak away and to allow of the gutter being occasionally swept clean of any rubbish which may find its way into it. This gutter has been in use for eighteen months, and, although it receives a plentiful supply of soapy water

and urine, it has never been in the least foul. This gutter is forty feet long, and terminates in the main filter-channel leading towards the stream. The slop-water has not, apparently, at any time, travelled more than about four feet along this gutter, and when, a few weeks since, one of the perforated tiles was taken up the rubbish beneath it was perfectly clean and absolutely odourless. This result has far surpassed Dr. Poore's anticipations, and seems to show how easily domestic slop-water may be got rid of provided there be thorough exposure to the air.

The rain-water pipes which conduct the water from the roof end in 'shoes,' which empty into blue Staffordshire gutters, which terminate, as do all the other slop-channels, in the main channel, which filters into the stream. The waste-pipe of the bedroom slop sink has no trap and is open at both ends, and neither at the upper nor lower end has any foul odour ever been detected. A trap, which is a cesspool in miniature in which foul water stagnates, is sure to get offensive, and, if the necessity for traps can be abolished, as in the present instance, a great sanitary gain is effected.

Dr. Poore has also dealt with the slop-water of nine cottages on a similar plan to the above, and with good results, notwithstanding the difficulties of arranging the levels in a situation which is only two or three feet above the water level.

The arrangements of the house have been in use for eighteen months, and have stood the test of exceptional floods, exceptional frost, and a drought of moderate severity.

CLINICAL MEDICINE

NOTES AND ABSTRACTS

By H. CAMPBELL THOMSON, M.D. (Lond.), M.R.C.P.

Laryngeal affections are not uncommon during the course of enteric fever, but they are usually not of such severity as to become dangerous. Occasionally, however, acute oedema of the glottis may suddenly occur, and, as the cases quoted below show, usually ends fatally within a few hours. Lunig has given an account of 115 post-mortem examinations of patients who have died from enteric fever in whom there were serious laryngeal complications. In nine of those cases there was some oedema of the larynx, but in only six of them was the condition uncomplicated. In most cases where acute oedema has set

in ; it has been found to follow ulceration of the larynx ; but Murchison states that it may sometimes come on in advanced stages of the disease without any previous ulceration.

Case I.—Dr. Parsons reports a case in the ' Dublin Journal of Science ' for November in which this complication suddenly set in. The patient, a man aged twenty-two, was admitted into hospital feeling ill and unable to get about. For ten or twelve days before admission he had been feeling unwell, and had had some diarrhoea and some epistaxis. On admission his temperature was 105°, pulse 104, respirations 28. Nothing abnormal was found in the heart or lungs. On November 3 some râles could be heard in the lungs, and there were a few ill-defined spots to be seen on the abdomen. The bowels were moved once or twice a day for the first eight days, after which there was constipation, which necessitated the occasional use of an enema. From the duration of the illness, and the absence of any direct physical signs, the case was diagnosed as enteric fever. From the twenty-sixth day of the illness the temperature gradually fell, until on the morning of the thirty-second day it was 97°. On that day the patient seemed very well and complained of nothing except a slight pain in the throat, and examination showed some little enlargement of the left tonsil. That evening the temperature rose to 102°, but fell the next morning to 99°. On that day (the thirty-third of his illness) a careful examination of his abdomen was made, but nothing abnormal found. The temperature, however, commenced to rise, and by 1 P.M. had reached 105°. At about 3 P.M. he went to sleep, and woke at 4 P.M. with difficulty of breathing, and the respirations were so loud that they could be heard at a distance of fifteen or twenty yards off. No pulmonary changes could be found to account for the dyspnoea. There was distinct laryngeal stridor, feeble phonation, and sucking in of the suprasternal and supraclavicular spaces. The face was pallid, with some lividity about the lips. A laryngoscopic examination, made with great difficulty, showed a bright red epiglottis with some yellowish material along its edge, and it was obvious that acute œdema of the glottis had occurred, which could only be relieved by tracheotomy. This operation was performed, but the patient sank and died within a few hours. A post-mortem examination showed that the diagnosis of enteric fever was correct. There was very marked œdema of the larynx, so much so that on looking into the larynx the vocal cords were quite invisible.

Case II.—Another case of enteric which also ended fatally by this complication was under the care of Dr. Osler, and is reported in the John Hopkins' report for 1894. The patient was a woman in the fifth month of pregnancy, and, when admitted on January 1, 1892, gave a history of five days' illness. Spots and other typical signs of the disease were present. During the first week in hospital there were no special features to be noted, except a high temperature, which was with difficulty controlled by baths. During the second week the temperature was lower, only occasionally reaching 104°. The pulse, however, was more feeble, and the patient had emaciated very much, and during the third week the temperature again became high, usually being 104° and 104·5°. There was no diarrhoea, and no distension of the abdomen. In the fourth week the patient became delirious. About February 22 she began to be troubled with slight hoarseness, and by February 24 could scarcely speak above a whisper, and by noon there was marked difficulty in breathing, and, as far as could be seen, there was great œdema of the larynx.

That evening tracheotomy was performed with temporary success, but the patient sank and died on the fiftieth day of illness.

Both these cases were marked by the extreme suddenness by which the symptoms came on without any definite warning, and by the rapidly fatal termination.

Typhoid bacillus in urine.—The presence of the typhoid bacillus has for some time been known to occur in the urine of patients suffering from this disease.

Dr. Wright and Surgeon-Major Semple have published important researches ('The Lancet,' July 27, 1895) on this subject, which tend to show that the bacillus is present in the urine, and probably not in the faeces, that which was usually thought to be the typhoid bacillus being in reality the *Bacillus coli communis*. The authors point out the great value of these observations—(1) with regard to the spread of typhoid, for the faeces have always been looked upon as the chief cause of infection ; (2) if the bacillus is constantly found in the urine it should prove a valuable means of clearing up the diagnosis of difficult cases, and (3) it would point to the symptoms of typhoid being due to a primary general infection of the body rather than an affection of the intestinal canal followed by general effects due to absorption.

The typhoid bacillus is a short bacillus with rounded ends, and is provided with cilia both on the

sides and ends. It is capable of preserving its vitality a very long time in water, and even in sterilised water it remains active for a long period. The bacillus may be cultivated on agar-agar, blood serum, and other media.

CLINICAL GYNÆCOLOGY

NOTES AND ABSTRACTS

By ARTHUR E. GILES, M.D., B.Sc., M.R.C.P.

Assistant Physician, Chelsea Hospital for Women

FLEXIONS AND DISPLACEMENTS OF THE UTERUS

While the great operations in gynæcology are making almost daily advances of the highest interest and importance to the gynæcological surgeon, there are many minor conditions met with in daily life which, from their frequency, evoke a much wider interest, and which, by their intractability, severely tax our therapeutic resources. As my purpose in these papers is to deal mainly with the latter class, I take up this month the consideration of one of the commonest groups of ailments—flexions and displacements of the uterus.

Flexions and Displacements which cause no Symptoms.

I must first deal with this small class.

Anteversion has been generally included among the displacements; but it is a physiological condition, and only in very rare cases gives rise to symptoms. Those that are attributed to it are, indeed, mostly theoretical.

Retroversion of a normal-sized uterus is also, under certain circumstances, physiological; for instance, in a patient lying on her back with a full bladder. In such a case it is not an uncommon thing to find, on making a second examination a few days later, that the fundus is lying forward. The same thing may occur with a uterus that is slightly enlarged, as in early pregnancy, and during the early weeks after labour. These conditions therefore require no treatment.

Congenital flexions often exist without causing any trouble; and then the first symptoms may date from interference with them. Some light is thrown on their probable origin by a recent paper of Mackenrodt ('Archiv. f. Gynäk.' vol. xlvi. part iii., 1895) on the anatomy of the structures supporting the uterus.

He shows that the pelvic fascia, which forms the pelvic floor, sends strong ligamentous bands up into the supra-vaginal portion of the cervix and down over the vaginal fornices: by the arrangement of the first set the curvature of the uterus is determined; whilst the second set influences its position. These congenital flexions are often associated with under-development of the uterus.

Lastly, a *slight prolapse* of the uterus may occur without symptoms; the cervix is readily reached, and the uterus either remains permanently low in the pelvis, or it is susceptible of a slight up and down movement from laxity of the vaginal reflections.

From these considerations I draw two deductions. Firstly, when there are no symptoms there should be no interference; secondly, when there are symptoms, they should not be attributed immediately to the condition found; it is better to wait and see whether there is any spontaneous alteration after a few days.

Flexions and Displacements causing Symptoms.

I. Non-inflammatory conditions.—If a pure flexion causes trouble, this is generally dysmenorrhœa. The way in which it comes about is not quite plain. That it is by 'obstruction' I do not at all believe; for, in the first place, the menstrual flow in these cases is always moderate, or even scanty, and the amount of blood passing at any one time is therefore small; and in the second place, obstruction would necessarily cause accumulation behind the obstruction, and this never occurs. It has always seemed to me that the pain is produced by the contraction of the muscle fibres at a disadvantage. The analogy of some varieties of labour pains is suggested.

The condition found on examination is, that just in front or behind the cervix a firm knob is felt, between which and the cervix the tip of the finger rests in a well-defined angle. It is a mechanical trouble, and requires mechanical treatment, viz. straightening the uterus. For this purpose the uterine canal requires to be slightly dilated, and the somewhat maligned intra-uterine stem inserted for a short time is most serviceable. To assist physiological rest it is a good plan to make one or two shallow longitudinal incisions through the mucous membrane at the level of the internal os, dividing some of the inner, circular, muscular fibres in this position. Careful antiseptic measures must not be omitted in these comparatively trivial procedures.

A movable retroverted uterus may cause various disturbances: the most frequent is the sensation of

ill-defined weight and fulness in the pelvis, due, probably, to congestion. From the position of the fundus there is often discomfort during action of the bowels. Bladder disturbance is not common unless the uterus is enlarged; and then there may be enough pressure of the tilted cervix against the base of the bladder to cause frequent desire for micturition. If the fundus remains for some time low in Douglas's pouch, the tubes and ovaries are dragged upon, and one or both of the latter may become 'prolapsed'; in that case dyspareunia is generally complained of, as well as dysmenorrhœa.

The proper treatment here is to replace the uterus and keep it in position with some form of 'Hodge' pessary. A few small points must be attended to. Thus, the instrument must fit properly; it must be adapted to the width of the posterior fornix, and also to the length of the vagina. If too long, it is apt to press on the urethra, and cause difficulty in micturition; or it may press on the rectum, and produce a tendency to constipation. If the vaginal walls are lax, and the fundus heavy, the instrument is likely to be tilted up anteriorly, and the retroversion is reproduced. If an ovary is lying in Douglas's pouch it may be pressed upon, and much pain will result. I therefore prefer an instrument made of block tin; it is clean, and can be moulded to any desired shape. One or both of the posterior angles can be depressed to prevent pressure on the ovaries; and the anterior bar may be indented so as to form an arch over the urethra. The relation of the breadth to the length of the instrument can also be adjusted. As a rule the posterior bar should be made to project well forwards and upwards.

It is of course evident that to put in an instrument is useless unless the malposition has been first rectified; for this purpose the sound can be used if necessary; but it is better to try to do without it.

I shall not here enter upon the question of prolapse, which is almost a separate subject.

II. Inflammatory conditions.—Flexions and displacements associated with or resulting from inflammation in the pelvis are more difficult to deal with. They may either be produced by cicatricial contractions following inflammatory processes, or an inflammation supervening on a malposition may fix it. Thus, anteflexion is sometimes caused by contraction of the uterosacral folds, causing traction backwards at the level of the internal os, while the fundus is held in its place by the round ligaments. If the latter be lax, retroversion will be produced instead.

On the other hand, pelvic inflammation may arise when the uterus is already retroflexed and verted. This complication often arises from inflammatory disease of the appendages, and the condition is a serious one; serious, not to life, but to health and usefulness. For we then find associated all the principal symptoms familiar to gynaecologists: pain, often excessive and continuous; severe dysmenorrhœa; irregular metrorrhagia, due to the fact that the uterus cannot contract properly; abundant leucorrhœa, caused by the pelvic congestion; and these are followed by general weakness and secondary nervous disturbances. For the affluent, this means 'sofa-life'; for the poor it involves an in-and-out hospital life.

The question of treatment is always an anxious one. Obviously, to put in a pessary is to add risk to inefficiency. The one thing needful is to restore the mobility of the uterus. If time be no object, this may often be attained by a somewhat prolonged course of rest in bed, combined with a depletory treatment by means of vaginal irrigation and tampons of glycerine, with or without ichthyol (5 to 10 per cent.). To this may be added a course of hip baths of monosulphite of sodium (Na_2So_3), 4 to 10 oz. to the bath. During this treatment an occasional attempt must be made to raise up the uterus; for this purpose the sound may be used, but it requires to be employed with great care. After some time it will often be found that the uterus can be moved a little; and by degrees the normal position can be restored. When this occurs a Hodge pessary is introduced and kept in for some time.

If suppurative disease of the appendages be present, the above treatment will generally be futile; and until the offending organs be removed no permanent cure can be hoped for.

Sometimes the adhesions, by long neglect, have become so firm that they cannot be overcome by the above means. The unwillingness to advise operation has then induced many to resort to massage; and some cures have been reported. I confess I am not convinced of the efficacy of massage; and there are cases where it would cause grave danger, from the rupture of thin-walled pus-sacs. But it is a question to be decided by facts and experience, and not by prophetic denunciations or *à priori* arguments. In any case, only two other courses are open: either to leave the patient to her sofa, or to operate. The latter involves some risk; if the patient prefers not to run it, the practitioner must treat symptoms as far as possible. His guerdon will be a large attendance bill.

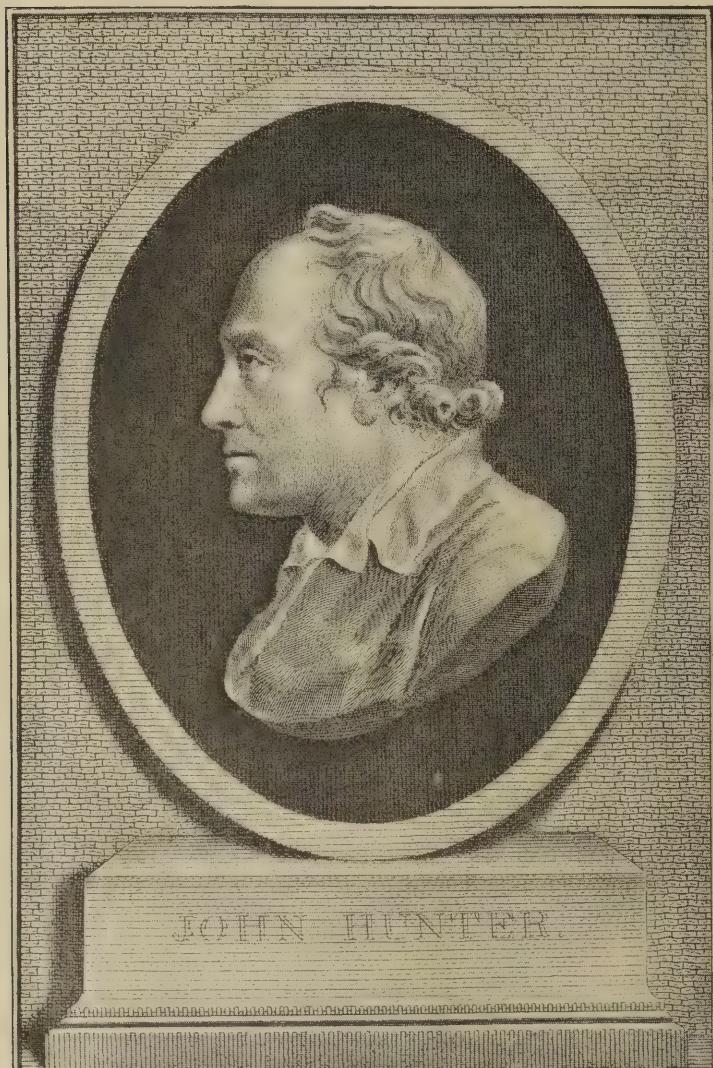
Most patients, however, prefer the one risk to the certainty of disability; and a grave responsibility rests on the attendant if he refuse to give the relief demanded. I will not enlarge on the operation question, but only indicate that it may take the direction either

of a simple breaking down of adhesions, or of the removal of suppurating and disorganised ovaries and tubes. In either case the fundus may, in addition, be fixed to the anterior abdominal wall (*Hysteropexy*). The after-results are favourable.

John Hunter, F.R.S.

BORN 1728, DIED 1793

To do justice to the memory of John Hunter would require a large volume, but perhaps the following



practical and philosophical study of his profession, and his bent of mind was shown in his remark that the attempt to stuff him with Latin and Greek at Oxford was one of the many schemes for his education, all of which 'he cracked like so many vermin.'

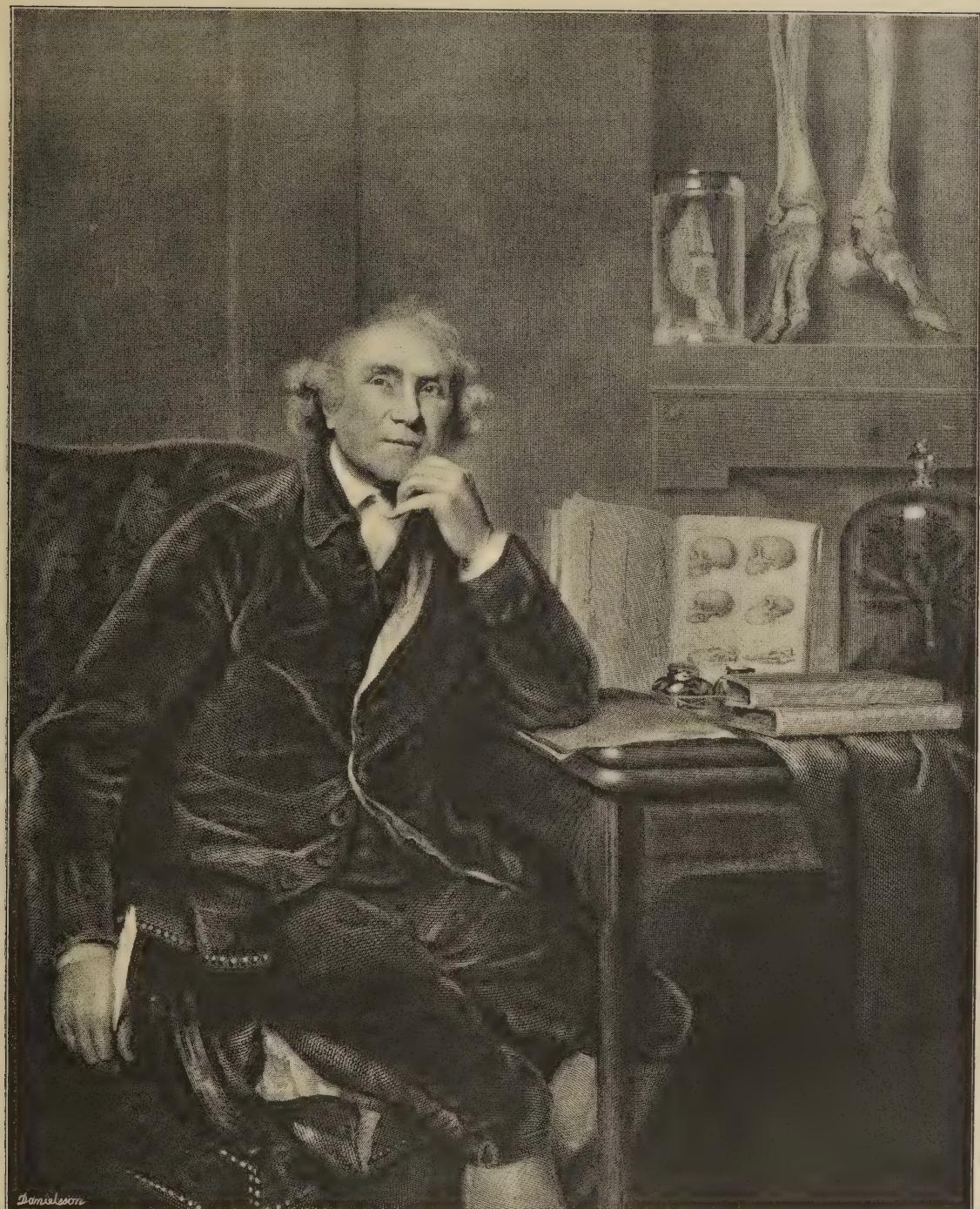
His devotion to science was so engrossing that he found no time, nor had he the inclination, to take part in social parties. We all know the story of his coming home to find one of his wife's entertainments in progress, when he appeared among the guests in his toil-worn clothes and dismissed the company without ceremony.

To show the scope of Hunter's works, it should be remarked that, although a Hunterian Oration is given at the Royal College of Surgeons every year, there seems no lack of material to enable every orator to construct a discourse full of interesting and instructive facts.

Some of the more notable of his researches and discoveries are the following. He traced the descent of the testes in the fetus; made valuable discoveries regarding the placental circulation; investigated the nasal and olfactory nerves; tested the absorptive powers of the veins; studied the nature of pus; elucidated to some extent the course of the lymphatic system; discovered the formation of collateral circulation, and applied his discovery to the cure of popliteal aneurism by tying the femoral artery; made observations upon various facts in comparative physiology; studied the digestion of the stomach after death, and founded at his own expense one of the greatest museums of its kind in the world.

John Hunter was a pupil of Cheselden and Pott. At the age of 48 he was made Surgeon-Extraordinary to George III, at 58 Deputy Surgeon-General

sketch will suffice to remind the reader of his chief works and character. He gave all his energies to the



JOHN HUNTER, F.R.S.

to the Army, and at 62 Surgeon-General and Inspector-General of Hospitals. In 1787, at the age of 59, he received the Copley medal from the Royal Society.

His pupils included Jenner, Astley Cooper, Cline, Abernethy, Anthony Carlisle, Chevalier, and Macarthy.

His museum and his zoological garden at Earl's Court, his house in Jermyn Street, and afterwards in Leicester Square, the latter in conjunction with one in Castle Street, and the intervening ground, on which he spent 3,000*l.* in building a museum, are known as landmarks in the history of London.

His end was tragic, and occurred during a dispute at St. George's Hospital regarding the entry of some pupils who had not fulfilled the requirements of the hospital, drawn up by Hunter's antagonists.

After death it was found that the mitral valve and coronary arteries were ossified. His remains were placed in Abbot Islip's Chapel, on the west side of the nave of Westminster Abbey.

We print a copy of the well-known portrait of John Hunter painted by Sir Joshua Reynolds and engraved by Sharpe, and also a profile view of Hunter's head from an old engraving.

It is needless to say that the former is beautiful as a work of art and charming as a representation of a contemplative attitude of the subject; but the latter, we think, shows better the characteristic physiognomy of this truly great worker.

forty years ago, since when the science of medicine has advanced enormously, yet Dr. Goodhart did not feel disposed to let our ancestral worthies rest under any such offensive imputation.

It can only be ignorance which imputes to 'humbug' that studied manner and careful method of expression which distinguishes the polite physician, and which helps to calm the mind of the over-anxious patient, or convey to him in pleasant terms an unwelcome truth.

These are our words, but they express, we think, what Dr. Goodhart meant.

The uncertainties of diagnosis.—The lecturer then discussed the uncertainties of medical diagnosis; the difficulties which determine the exact meaning of certain symptoms, and especially as regards the condition of the organs contained within the thorax; the uncertainties of the symptoms which denote phthisis; the difficulties connected with hypertrophy of the heart; and, with regard to the latter, he referred to the modern treatment by exercise and baths. He uttered a word of caution to those who would depend too much upon a varying amount of praecordial dulness before and after such exercises.

In the post-mortem room the largest hearts are found where they have been unsuspected; and a large heart may become a very large heart indeed.

'Emphysematous lungs are a great hindrance to the detection of large hearts, and the greater expansion of the lung under the exercise may in the same way mask the hypertrophy. No observation upon praecordial dulness before and after exercise is of much value.'

Then, again, he had seen a pericardial sac cut down upon as being full of fluid, after a most careful examination, and found to be dry.

The difficulties of abdominal pain were also referred to. Dr. Goodhart questioned whether spasmodic pain, severe enough to cause vomiting, could ever be attributed to simple intestinal trouble, without there being some further mischief, such as 'calculus, or peritonitis, or twists, or something dreadful. I think,' he said, 'that unbearable pain from simple intestinal muscular action is rare, although it may well seem somewhat inconsistent to allow its existence for such an insignificant little canal as the appendix cæci and to doubt it in the case of the bowels proper. But perhaps it is the very insignificance of the appendix that constitutes its sting.'

The lecturer referred to many instances of errors in diagnosis. There are few of us, if any, who could

Epitomised Lectures and Papers

AN ADDRESS ON SOME OF THE LIMITATIONS OF MEDICINE

Delivered at the Opening Meeting of the Session of the Medico-Chirurgical Society of Exeter, on Friday, Oct. 18, 1895

BY JAMES F. GOODHART, M.D. Aber., F.R.C.P. Lond.

Physician to Guy's Hospital

DR. GOODHART commenced by quoting Mr. Leslie Stephen's life of his brother, Sir James FitzJames Stephen, regarding whose choice of a profession his uncle, Henry Venn, remarked, 'There is a providential obstacle to you becoming a doctor: you have not humbug enough.' And although this was said some

not record instances of such mistakes, and the writer would add to what Dr. Goodhart has said by recording the following cases.

A story was told by the late Dr. Handfield-Jones of a man condemned by the physician whom he consulted to eight months only of life in consequence of supposed large cavities in the lungs. He spent the time that he thought was left to him at his favourite sport of duck-shooting, being constantly in the wet and fog, and doing everything of which his physician would have disapproved. Whatever may have been the matter with the man, he got perfectly well, and three years later visited that same physician in a robust state of health.

The writer had personal experience of a case where six months of life only were allowed as possible by two most eminent physicians, for they diagnosed serious disease of the kidneys. The patient, upon hearing such a diagnosis, transferred all his business to his son, and resorted to his only means of relieving pain—brandy. He rapidly went from bad to worse, until he was consuming two bottles of brandy a day; but a stoppage of this custom and careful regulation of diet proved that the malady was only functional, and he recovered, and lived for over ten years a most useful member of society.

Treatment.—‘Here again we are met with enormous difficulties. To prescribe for a headache may be an easy thing, albeit not always successful; but to prescribe for John’s headache and Thomas’s headache are different things. “There are at least six personalities distinctly to be recognised as taking part in a dialogue between John and Thomas,” says the Autocrat of the Breakfast Table. “You know them. The real John, known only to his Maker, who is not his physician, unfortunately. It is, indeed, too sadly true for applied physic that the medical man’s patient is never the real John, or John’s John, but often very unlike either. We, indeed, know nothing of the details that produce individuality; one might almost fear that we never can know, forged as we are by the past and moulded by the present, constantly adapting ourselves to changing circumstances. To attempt to control disease as modified by such unstable conditions might well seem hopeless; an attempt to reorganise and reform a complex system that is the growth of years; a task meet, indeed, for the reformer who is blind to disaster even in the wreck of revolution, but not for the thoughtful mind, not for the balanced judgment, not for us.” Happily, things are not so uncertain as they might seem, and

day by day they become a little less so; but for the present, and for long, it must still be that we know much less than we do not know. And this ought to be made as clear to the mind untrained to medicine as to us.’

The verdict.—Dr. Goodhart then led on to the discussion of how much of the truth should be told a patient when a fatal issue is at hand or some incurable disease is present. There are three classes of patients, if not more. ‘There are those who really want to know all that we can tell them—the *very* truth. I put this group first in deference to the view of the “patient” I am combating; but it is, in my opinion, a very small group indeed. These generally succeed in making it quite clear that they really are in earnest in their request, and, in my experience, the absolute, naked truth is told them. Then there are those who, having asked for the truth, do not really know their own minds; they only want favourable truth, and when it turns out unfavourable they seek an opportunity to go away from Dr. A. to Dr. B., because, say they, Dr. A. is so abrupt, or so desponding or depressing, or always takes the worst view of his cases. In another still larger group of cases the question is never faced at all. They may have grave fears about the gravity of their malady, and they unconsciously minimise their symptoms. They may brood over and fear the worst, but they never ask for an opinion—they never even mention their suspicions or fears themselves; these leak out, perhaps, by the sigh of relief that results from a cheery verdict or from the furtive aside of an accompanying friend.’

As to the point which Dr. Goodhart urges, that we must adapt our statements to the peculiarities of the patient, there can be no doubt, and such a fact is acknowledged by every right-thinking doctor, whether he be physician, or surgeon, or general practitioner; and to designate careful and considerate expression of opinion as ‘humbug’ is surely a misapplication of the term,

‘I have chosen this,’ said Dr. Goodhart, ‘the most vital question, upon which to defend our freedom of judgment as to how we shall present our opinions to individual patients, because this is the one where our wisdom is most commonly called in question. But there are numberless other circumstances in which, if we would do the best we can for those who consult us, we cannot always say exactly what we think.’

Tuberculosis.—Dr. Goodhart thought that there was great danger in our ‘letting the facts run away with us as regards the exact importance of the bacil-

lary origin of tuberculosis'; and further, 'if anything is sure in the history of tuberculosis, this is, that the infecting agent is *not* a virulent one.'

In the midst of the very scientific researches of the present day it is refreshing to find so good an authority as Dr. Goodhart pointing out the danger of taking only a bacteriological view of the subject.

He thought that the practice of the future would be a rebound to the teaching of a bygone day, 'not a struggle with a countless host of invisible enemies, a struggle that might well seem hopeless did we but stop to think about it, but, with increasing powers of securing health, a recognition of the fact that by keeping people healthy these microscopic armies lose their terrors.'

At the same time, he would not by any means ignore the precautions which modern bacteriology had taught us. With regard to disinfecting houses, he said he had no practical knowledge, but he once dreamt that he beheld 'a stronghold of bacilli, grown big and visible in the illusions of the night, assaulted by the sanitary inspector with his sulphur and his lime, and as the fumes arose these bloated midges giggled to themselves at the pleasure they derived from the unusual perfume. But by-and-by Messrs. Soap and Water came upon the scene, the windows were opened and the winds of heaven let in, and then it was that they turned tail and fled.'

There are probably few districts in country places, we would add, certainly none in crowded towns, where tuberculosis does not occur, and therefore where tubercle bacilli are not at home. Surely it is more practical to build up our patients and fit them to resist this common enemy, than to try the more than Herculean task of its eradication.

Aneurism of the arch of the aorta.—This malady Dr. Goodhart thought was often overtreated. We know that such cases are practically incurable, and that many last a long time—three, four, five, or even seven years—under favourable circumstances. He thought that very rigorous treatment in the way of dieting and prolonged rest in bed was dangerous unless directed with great judgment. He would allow gentle exercise, with occasional rest in bed if pain be severe or there be signs of rapid increase of the aneurism; ample diet of good blood-making food, including fats; reducing as far as practicable, without destroying the comfort of the patient, the amount of fluid taken in the twenty-four hours, with the use of suitable drugs.

Up to this point the lecturer had dealt with medical subjects. He next referred to some surgical affections, regarding which he seems to hold rather sceptical opinions.

As to ringworm, he almost ridiculed the use of treating it at all. He had failed to cure many cases himself, and doubted whether the specialist was more successful. The removal of adenoids, also, he thought was often unnecessary.

As to adenoids, we take it that the lecturer will hardly admit that they are a natural condition; therefore, surely in all cases it is better to remove them. But this we can say with certainty, that no minor operation in modern surgery has produced greater benefits than this.

Dealing with lateral curvature of the spine, Dr. Goodhart seemed to think that slight cases do not get worse, and therefore hardly need much treatment, and that the very severe ones are almost beyond amelioration; and he further asks, 'Did anyone ever yet see a slight curve go on into a very bad one?' We would ask, 'Where do all the bad cases come from? For they are not born. They exist in thousands, and their history tells of a *slight* commencement.'

METHODS OF INTESTINAL SUTURING

SUTURING THE INTESTINE¹

Dr. Emmerich Ullmann, of Vienna, describes a new method of suturing the intestine with the object of obtaining certainty as regards result rather than quickness of operation. The method he refers to was originally suggested by an Australian physician, Dr. Wydenham Munsell, but first performed by Dr. Ullmann in December, 1894.

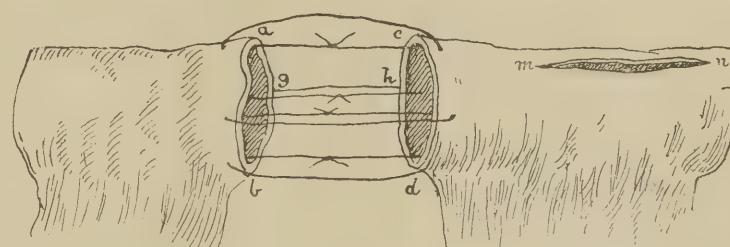


FIG. 1

Method of procedure.—A fixation suture is passed through the whole thickness of both of the divided ends at the insertion of the mesentery, the knot being

¹ *Annals of Surgery*, August, 1895.

tied on the inside (fig. 1, *b d*). The same is done on the opposite side (*a c*), and then on the two lateral sides (*e f* and *g h*). Then, with a cut of the scissors, a longitudinal opening five or six centimetres long is

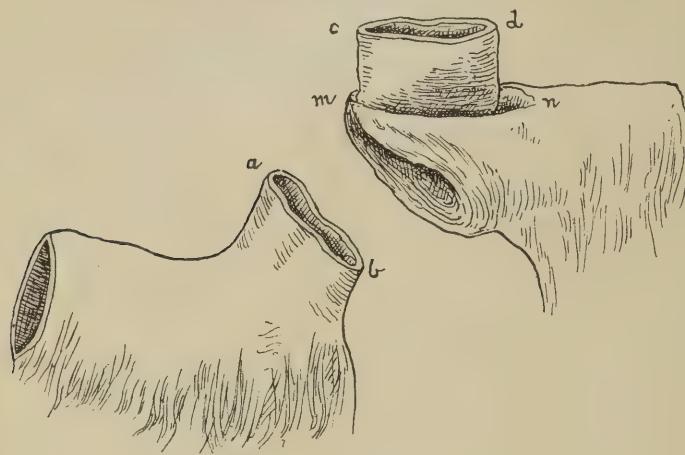


FIG. 2

made on the side opposite the mesentery in the afferent end of the intestine. Through this opening a pair of forceps is passed and the sutures grasped and drawn up. As this is done the proximal end of the intestine becomes inverted and drawn through the wound (fig. 2). With this comes the distal end, so that both ends of the intestine are drawn through this opening (*m n*). The mucous membrane of the efferent end looks inward, and that of the afferent end looks outward. Between the two mucous membranes the peritoneum lies upon peritoneum. The four sutures are then drawn up and tied, dividing the circumference

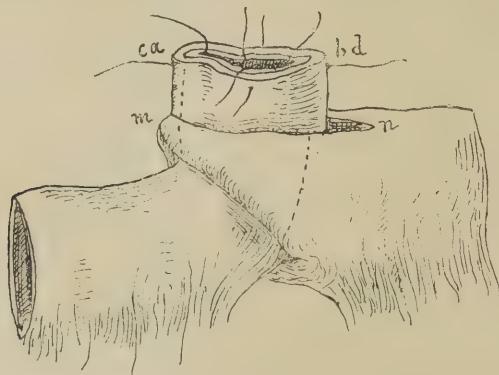


FIG. 3

into four segments, so that the application of the other sutures is very easy. Two sutures can be applied at the same time by passing a needle straight through the four walls at one time, cutting in the

middle, and letting an assistant tie one side while the surgeon ties the other. These sutures are naturally tied on the inside, and the ends are closely cut. After the application of this series of interrupted sutures, the invaginated gut is drawn out again. The longitudinal opening is then closed. Silk is used in the operation. The danger of invagination is prevented, because the distal end is sewed into the proximal end.

If the operation, as Ullmann performs it, stands the test of time, we shall have learned something in abdominal surgery, and seen another of the bugaboos of infection disposed of.—*Centralblatt für Chirurgie*, No. 2, 1895.

A CONTRIBUTION TO THE TECHNIQUE OF INTESTINAL SUTURING¹

Dr. Landerer, of Leipzig, endeavours to shorten the operation when it is desired to use a button. Although the Murphy button has been a very great success, yet Dr. Landerer refers to cases in which it has caused perforation and fatal peritonitis. He objects to the size and weight of Murphy's button, which hinder its easy expulsion and passage through the intestinal canal, and the necessary necrosis of the clamped portion of intestine, which renders perforation liable to occur.

The following procedure he has only as yet tried upon dogs and cadavers. A cylinder is cut out of a potato or turnip. This cylinder is perforated by a hole made with a cannula or grooved chisel, is bevelled at either end, and traversed about its middle by a circular groove (fig. 1). This groove is 1 centimetre to 1·3 centimetre long, and one half centimetre

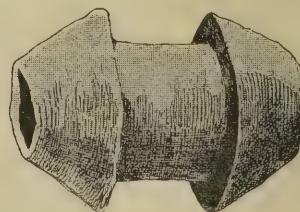


FIG. 1

to 1 centimetre deep. It is in shape very like the bone cylinders of Neuber. These cylinders are made in various sizes before the operation, and disinfected in sublimate solution 1 : 1,000.

The two ends of intestine are brought over this

¹ *Annals of Surgery*, August, 1895.

cylinder. The intestine is first fastened by a running suture passed through the intestinal wall over and over the edge of the gut (fig. 2). The two ends of the loosely applied suture must be crossed at the place of tying, or a little puckering will result, through which intestinal contents can pass. In Landerer's first two cases a small faecal abscess formed at this place. It was shut off, and did not interfere with recovery. The suture need not be applied so near the end of the gut as is shown in fig. 2, but more of the intestinal wall may be included. It may be inserted 3 to 5 centimetres from the edge. Landerer begins this running suture at the point opposite the insertion of the mesentery, and allows the threads to cross before tying. If the knot is made on the side towards the mesentery, irregularities are less easily discovered. With the help of this suture—as with the tobacco-pouch suture used with the Murphy button—the intestine is pushed over the cylinder, so that it rolls into the groove, and the suture drawn up like a shoe-string and tied; and its serous surfaces come together. In some cases it has sufficed to apply simply a single suture at the mesenteric insertion to prevent the gut from pulling apart. Healing in these cases was perfect. A few interrupted sutures or a running sero-serosa suture may be applied. These sutures are applied very easily, because the surfaces are held nicely in position by the underlying cylinder.

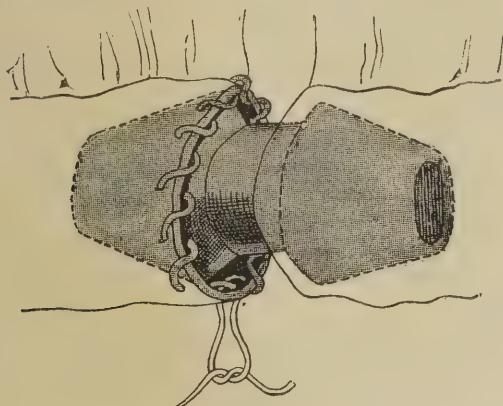


FIG. 2

It suffices to apply simply a serosa suture at the mesenteric insertion, and one on the opposite side of the intestine (fig. 3).

The canal through the cylinder should be 5 to 8 millimetres in diameter. In dogs, Landerer used a canal 3 to 4 millimetres in diameter. In dogs which were killed on the third or fourth day there

was no faecal accumulation found either above or below the cylinder, as has been often found in the cases where Murphy's button was employed. The faecal current evidently circulated freely through the cylinder.

At the third or fourth day the cylinder was found to be just as firm as at the operation, though its ends

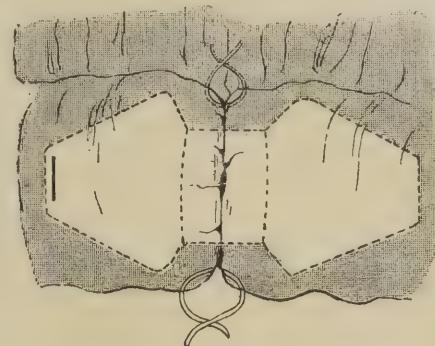


FIG. 3

and lumen had begun to show that it was being digested away. It can be assumed that the vegetable cylinder remains in place five or six days, which is abundant time for strong adhesions to form. After eight or ten days the cylinder could not be found anywhere in the intestinal tract, nor in the faeces which had been previously passed. It had been completely digested. At this time only a linear scar remains, and there is nothing like a sign of stenosis to be found.

Although the experiments were difficult to perform on dogs, yet Landerer obtained good results.¹

The above cases were reported by Dr. James P. Warbasse, of Brooklyn.

MODERN METHODS OF COLECTOMY

LATERAL ANASTOMOSIS WITH MURPHY'S BUTTON

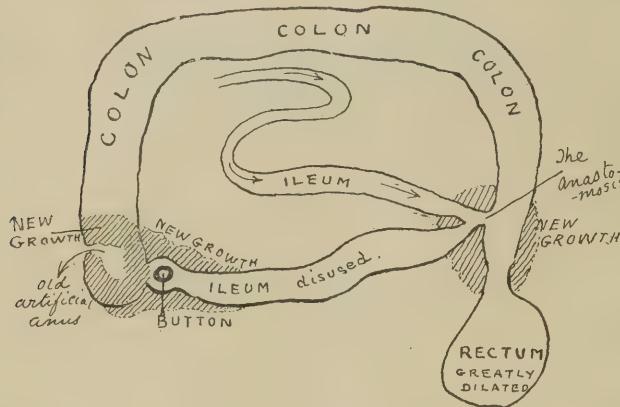
Mr. Charles A. Morton, Surgeon to the Bristol General Hospital, described² the case of a patient, aged 27, with intestinal obstruction from malignant stricture at the junction of the cæcum and ascending colon, for which the cæcum was opened with complete relief. Three months later obstruction occurred again, presumably from increase of growth nearer the stomach, and Mr. Morton then made a lateral anastomosis between the distended small intestine and the sigmoid

¹ *Centralblatt für Chirurgie*, No. 13, 1895.

² Brit. Med. Assoc. Annual Meeting, August, 1895. *Brit. Med. Journal*, October 19, 1895.

flexure with a Murphy button. Complete relief was afforded. The patient died three months later from general enfeeblement following increased growth of the disease.

The illustration shows that the button did not escape, but slipped back into the disused portion of



ileum as far as it could go, that is, to the point where the ileo-cæcal valve was obliterated by new growth.

Mr. Morton considered that it was this blockage which caused the second attack of obstruction. He further remarked that the possibility of contraction of the orifice taking place after junction by means of Murphy's button was one of the objections raised to the use of this button when first introduced. At the same time, he agreed that, judging by the clinical evidence, stenosis, after junction has been formed by the button, is extremely rare.

In considering the question as to why the button passed into the disused portion of the intestine, he quoted several cases in which the same result had followed lateral anastomosis. It had been suggested that this difficulty could always be got rid of by placing the heavier half of the button in the portion of bowel along which it was desired it might pass. The difficulty was to keep the patient in a proper position for this to happen, for we could not keep him lying for weeks in one posture, and the button might just happen to become detached when he was in the wrong position.

A SERIES OF CASES OF COLECTOMY¹

Mr. Mayo Robson, in describing a series of cases of colectomy, referred to thirteen cases operated upon in the Leeds infirmary during the past two years. There

¹ Brit. Med. Assoc. Annual Meeting, August 1895. *Brit. Med. Journal*, October 19, 1895.

was a mortality of 23 per cent. The operations were performed by five different surgeons, and so he thought we might fairly calculate the mortality on this basis, and not on the higher rate, given in text-books, of 80 per cent.

He related five cases in detail:

In the first, intussusception of the large bowel caused by the growth was relieved over and over again by injection, and finally by operation.

The second was a case of malignant intestinal tumour at the early age of fourteen.

In the third, the extent of the growth was very great, with infiltration of omentum, yet a primary operation was successful.

The fourth case exemplified 'the difficulty of performing successfully an extensive plastic operation in the peritoneal cavity, at the same time that a large septic abscess is associated with the part to be operated on; it also shows what extensive damage may result to the intestine by the lodgment of foreign bodies in the cæcum and ascending colon.'

The fifth case was an instance of a simple stricture of the intestine following on ulceration completely relieved by partial colectomy and enteroplasty.

In four of these cases Mr. Mayo Robson used the bobbin which he advocates; in the other he used Murphy's button. He stated that 'when one stitch only is employed, the bobbin operation can be done more quickly than the button method,' and he thought it gave greater security against leakage and a much firmer bond of union.

Professor Keen, of Philadelphia, related two fatal cases in which Murphy's button had been used.

Mr. George Hamilton, of Liverpool, had great faith in the button.

Mr. Allingham had performed eight resections, of which four done for obstruction had died. He preferred decalcified bone plates to the use of the button.

Mr. Harrison Cripps held that careful and accurate suturing was better than the use of any apparatus, and the two or three minutes more or less at the operation made no difference to the patient's chance of recovery.

Professor Macewen, of Glasgow, stated that, though he had buttons ready for use, he had never seen a case in which there was any reason to prefer them to stitches.

Mr. Mayo Robson, in his reply, held that a large Murphy's button was not so good in enterectomy, as it sometimes scored the colon in its passage down. He preferred to use sutures in pylorectomy and enter-

ectomy, but not in colectomy, where he thought the bone bobbin better, as allowing the surgeon to use a continuous stitch, and protecting the line of suture for several days.

Public Health

Thames floods.—The summer visitors to the river Thames are like the swallows. They disappear upon the first sign of a break-up of the warm weather, and are happily ignorant of the Thames Valley during the winter months. They may read of floods, but few of them realise the very serious effects produced when the river overflows its banks.

When the flood was highest during last winter an expanse of water extended from the Quarry Woods up to Marlow Church. The road at Bisham from Maidenhead to Marlow was a roaring torrent, part of the road for about 25 feet being washed away to the depth of 8 to 10 feet, and all the low-lying residences were flooded up to the bedrooms. This will serve as an example of what happened along the river for miles, and it may easily be realised how many cottages and houses were inundated. This was an exceptional flood, but many of the riparian residences are flooded every winter, and the grounds upon which they stand are waterlogged.

Mr. Haviland and others have shown how serious an effect upon the health of the inhabitants is produced by this condition of things, and especially as regards the production of cancer.

We do not touch upon the subject of damage to property, which, however, is very considerable. On the score of public health alone it is more than time that something was done to obviate this great evil (see pp. 164, 165, 166).

The Thames Floods Prevention Committee met at Windsor early in November, under the presidency of Mr. Webber, Mayor of Windsor, who was supported by Mr. F. T. Barry, M.P., Dr. Warre, Headmaster of Eton College, Sir J. Edwards-Moss, Sir J. Devereux, Sir H. Simpson, Mr. W. H. Grenfell, Alderman Marsh, and Mr. Paravicini.

Dr. Warre proposed, 'That this committee desires to express its dissatisfaction that practically no steps have been taken by the Thames Conservancy to mitigate the severity of the floods in the Thames Valley, although a year has elapsed since the destructive floods of November, 1894, and resolves that a deputation be appointed to wait upon the President of the Board of Trade to lay the whole subject before him, and to ask him if the Government can afford any assistance to the committee in the important object which it has in view.'

In the 'Daily Telegraph' report it was stated that the Headmaster of Eton, 'in the course of his remarks, drew attention to the arrangements upon the Loire, in France, and the Shannon, in Ireland, where large bodies of water were successfully dealt with, and said if it could be done in France, Ireland, and Germany, he did not see why it could not be done upon the Thames.'

A sub-committee was appointed to draw up a memorial to the Board of Trade, and we trust that some decisive action will soon be taken.

NOTES

OBSTETRICS AND PEDIATRICS

Melæna neonatorum.¹—Dr. William Pringle Morgan, of Seaford, Sussex, describes a case of normal delivery in which the infant seemed to be typically healthy, but when twenty-four hours old it vomited a few ounces of blood, and shortly afterwards passed a large quantity of blood by the rectum. It died a few hours later.

Post-mortem.—The intestines were found full of blood, and some blood was mixed with milk in the stomach. No ulceration of the mucous membrane could be found, either by Dr. Morgan or by the Clinical Research Association. The lung tissue was normal, but not fully expanded. One of the mother's other five children had died of tuberculous meningitis, but the rest were healthy. There was no history of haemophilia in the family.

The importance of examining the perineum in all cases of rapid delivery in primiparæ.—Dr. W. L'Heureux Blenkarne, surgeon to the Leicester Provident Dispensary, writes upon this subject. It is in the natural delivery, more especially in the rapid (natural)

¹ British Medical Journal, November 23, 1895.

delivery, that a rent in the perineum is most likely to occur. He had had two cases lately, in both of which he sewed up the rupture with ordinary needle and thread. The result was good.

Perforation of the uterus by a degenerate fibroid.—Richelot and Touche ('Bulletins et Mémoires de la Soc. Obstét. et Gynéc. de Paris,' No. 8, 1895) report the case of a woman, aged 43, who had not been pregnant for seven years, who developed symptoms of menorrhagia in May, 1895, and again in June. In July a tumour in the region of the uterus was discovered, reaching as high as the umbilicus. The uterus seemed normal at a vaginal examination, although connected with the tumour. The abdominal cavity was opened and the fundus uteri exposed, when a perforation about 2 inches in diameter was discovered. A spongy mass protruded through the perforation, the edges of which constricted it. In the interior of the uterus another part of the mass was found lining the true uterine cavity. The growth was a degenerate uterine myoma. It was removed and the edges of the rupture sutured to the abdominal wall.

Sarcoma of sacrum obstructing labour.—Dr. J. Ferguson Lees, of Hartlepool, writes upon this subject.¹ He describes the case of a woman, aged 25, suffering from retention of urine, vomiting, and diarrhoea. There was extreme emaciation and prostration. The skin was moist with clammy sweats. The patient was in the ninth month of pregnancy with her fourth child. The last child was born fourteen months previously. Her previous labours had been normal but tedious. During the last year she had been in bad health, and had suffered during the last three months from vomiting and diarrhoea with colicky pains. She also complained of partial loss of power and what she described as 'sciatic pains' in her lower limbs.

There was great difficulty in micturition, and offensive urine was drawn off with a catheter. The abdomen appeared peculiar in shape, elongated in a transverse direction, and on palpation the foetal head was found occupying the left iliac fossa, whilst the body of the child lay almost transversely across the uterus.

Per vaginam Dr. Lees found 'a non-fluctuating, uniformly hard mass lying just within the vulva. This mass occupied the whole cavity of the pelvis, and

it was only with difficulty that the finger could be passed between it and the symphysis pubis.'

The tumour was felt per rectum lying posteriorly to that object and firmly adherent to the sacrum. On April 24 labour pains commenced. Dr. Ainsley was called in consultation, and under chloroform the os was found dilated to the size of half a crown. The patient was admitted to the Hartlepool Hospital for operation. As the pains were strong and increasing no time was lost in making preparation. A dose containing a drachm and a half of liquid extract of ergot was given by the mouth, and five minims of liquor strychniae were injected subcutaneously. The abdomen was opened under chloroform, and the uterus cut into, when the placenta was found beneath the incision. Its tissue was divided by scissors to the extent of the wound (5 inches), the hand passed into the cavity, and the child extracted. The placental membrane being swept out, the uterus was grasped between two sponges, little blood having been lost. The walls of the uterus being attenuated and flabby, and there being an absence of contraction, it was determined to remove this organ, which was done by applying a whipcord ligature low down, a Keith's clamp being applied also.

Full details are given as to the care taken in the details of the operation. The patient never rallied, dying four hours after the operation.

The sarcoma was firmly attached to the front of the body of the sacrum. The space between the tumour and the symphysis pubis would scarcely admit a finger, and this small space contained the rectum and vagina, the bladder being pushed up above the pelvic brim. A microscopic examination showed the tumour to be a small spindle-celled sarcoma.

PURE DRINKING-WATER AND FILTERS

In the April number of this Journal we published an article upon the above subject. The facts there stated regarding the inefficiency of the majority of filters are now very generally known. Water passed through a charcoal filter, for instance, remains pure for a very short time, after which it becomes more and more contaminated, and is often far worse than the water which first entered the filter. This is a point of the utmost importance, and one which must condemn the use of such filters for purifying water which may contain disease germs.

¹ *Lancet*, November 23, 1895.

Since writing that article we have made further experiments and inquiries regarding the most modern forms of filters.

The trials regarding the relative efficiency of water-filters in connection with the prevention of infectious disease made by Dr. Sims Woodhead and Dr. G. E. Cartwright Wood, the results of which were published in the 'British Medical Journal' for November 10, 1894, showed that the only filters which proved efficient were the Berkefeld and the Pasteur-Chamberland.

We have already described the Pasteur-Chamberland filter. The Berkefeld filter consists of compressed and baked diatomaceous earth, constituted by the silicious skeletons of diatomaceæ hardly larger than the bacteria they are meant to intercept. Under the microscope they appear as shown in the woodcut below.



FIG. 1
(Magnified about 800 times)

This earth is highly porous, although most efficient as a steriliser. These filters permit water to pass through them five to ten times as rapidly as porcelain or asbestos cylinders of the same size, and therefore are certainly the most useful of all filters for house supply, for, when attached to a tap and subjected to the ordinary pressure of the main, the water flows through in a continuous stream instead of coming in drops, as occurs in the other reliable filter referred to.

Although reports have lately appeared which seemed to throw doubt upon the result of experiments in some cases, yet we have quite recently heard from Dr. Sims Woodhead that he considers the Berkefeld filter absolutely satisfactory.

We think it highly probable that not even these filters are perfectly safe for an indefinite period of time—that is to say, unless they are periodically sterilised—and it is therefore satisfactory to find that

the vendors of the Berkefeld filter make a great point of their being cleansed. The cleansing of an ordinary carbon filter is so troublesome that it has rarely been thoroughly carried out, involving, as it necessarily does, the purchase and employment of absolutely new ingredients, while no amount of cleansing will make them safe.

It is very pertinently remarked regarding the Berkefeld filter, that it arrests all impurities on the *outside* of the filtering medium. These impurities will gradually produce a slimy coating of dirt on the sur-

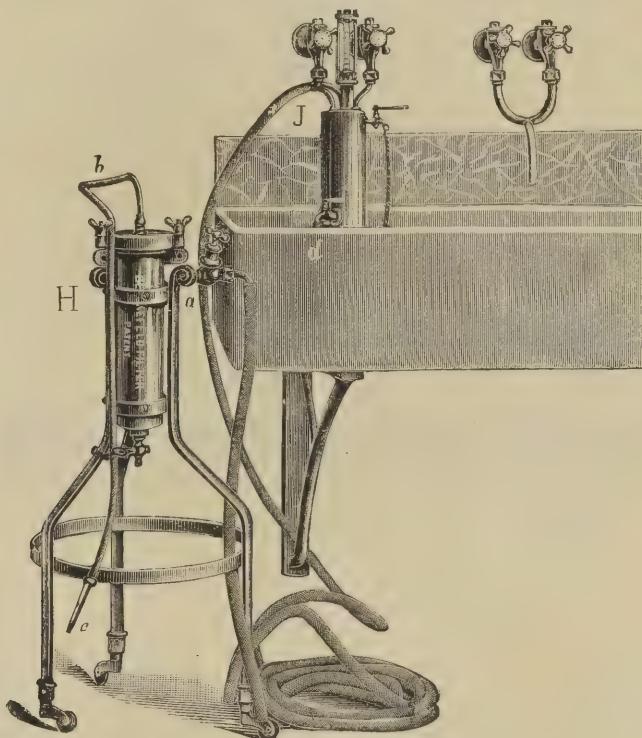


FIG. 2.—THE WHITE-BERKEFELD ASEPTIC IRRIGATOR

face of the filter, and may be wiped off at regular intervals with a piece of loofah, which is supplied with the filter. It is also desirable in this, as in every other filter, to sterilise it (the filtering candle) occasionally. The sterilising may be effected by simply removing the filter and placing it in tepid water, and then boiling it for about an hour. This is a very simple thing to do, and we doubt if any filter will ever be devised which will require less attention than the Berkefeld. For these reasons we confidently recommend it for all practical purposes.

A pattern of filter which promises to be of very great service to hospitals is the White-Berkefeld Aseptic Irrigator. This is intended to supply sterilised water at a regulated temperature for use in

surgical operations. It is used at St. Thomas's and many other hospitals.

Dr. Plagge, of the Medical Department of the Prussian War Office, has recently reported in very satisfactory terms concerning the Berkefeld filter.

We append illustrations of the household filters 'H' and 'F' as attached to the ordinary service-pipe.

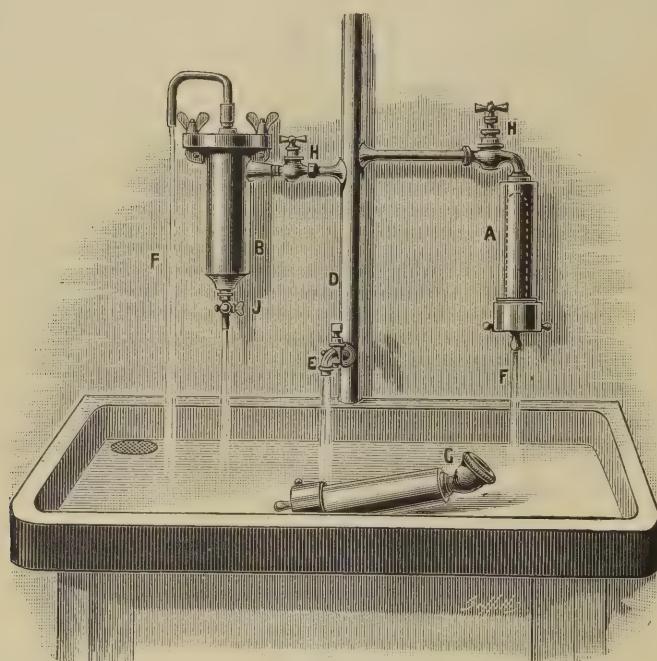


FIG. 3.—*E*, ordinary water tap; *H*, inlet tap to filter; *F*, outlet for filtered water; *I*, flush tap for 'H' filter

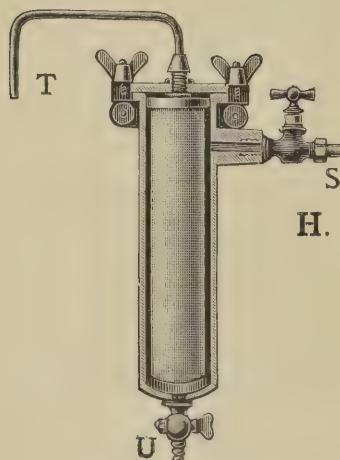


FIG. 4.—SECTION OF HOUSEHOLD FILTER 'H,' GIVING 10 TO 20 GALLONS PER HOUR UNDER ORDINARY MAIN PRESSURE

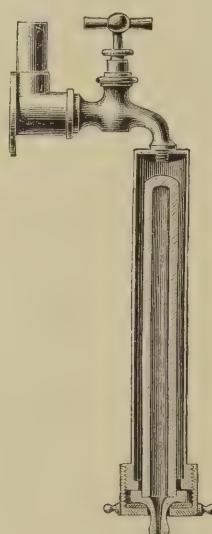


FIG. 5.—SECTION OF FILTER 'F,' GIVING ABOUT 5 GALLONS PER HOUR UNDER ORDINARY MAIN PRESSURE

ACCIDENTS IN THE HUNTING FIELD

BY NOBLE SMITH

CHAPTER II

At the end of the first chapter appeared an illustration showing the position in which a rider generally falls when he adopts that forward position in the saddle which has been likened in form to a note of interrogation.

The rider may roll right over and escape unhurt—a result which, fortunately, most frequently occurs—but, upon the other hand, he may fall upon the crown of his head, producing concussion of the brain or fracture of the skull, or, if his head be well protected, the shock will come upon his neck or some part of his spine, causing fracture, dislocation, sprain, or other less formidable injury.

In all falls, whether connected with hunting or not, there is a tendency for the individual to bend himself forwards, and it is quite remarkable how many fractures of the spine which have terminated fatally show this fact by their post-mortem appearances. The anterior part of the body of one of the vertebrae is broken off by the force of the spine above, pushed forward, and pressed upon the spinal cord, thus producing injury to that nerve centre in variable degree.

In the hunting fall above described this tendency to doubling up of the body is intensified, and whatever particular kind of injury is inflicted, it will probably be modified more or less by this position of the body. When I was House Surgeon to St. Mary's Hospital many years ago (1868) we had an exceptionally large number of cases of fractured spine, and, noticing the similarity of the injury in all the cases, I advocated extension of the spine, and attempts at reduction upon mechanical principles. My suggestion was, however, not accepted, as it was considered to be far too heroic. Since that time the practice of reduction, or attempts at reduction with fixation of the spine in an improved position, have been frequently carried out, and such a practice is now well established as giving the patient the best chance of recovery.

If, after a fall in which the rider has thus been 'doubled up,' he be found to be suffering much pain, or appear to have a difficulty in moving, it is better to assume that severe injury has occurred; and in removing the sufferer, even a short distance, it is most important to avoid carrying him by lifting him up

by the knees and arms (which is a common custom), as such an action would certainly produce further damage to the spinal cord in the event of fracture having occurred. The patient should, therefore, be placed as flat on his back as possible, being rolled sideways very gently on to a hurdle or other flat conveyance, and kept in an extended position until he can be properly examined by the surgeon.

The plan of raising an unconscious person adopted by firemen is doubtless a very useful one for persons insensible from suffocation, and it has been recommended in ambulance lectures for general adoption. This plan consists in lifting the individual on to his knees, and getting him upon the back of someone, to be carried. It is needless to give further details, because in hunting accidents the risk of injury to the spine to an unconscious person is so great that I cannot recommend this procedure. If a hurdle is not available, probably two poles will be, and about half a dozen horses' girths (a few friends might easily spare one girth apiece) may be used in the following way.

METHOD OF IMPROVISING A STRETCHER

The injured man should lie flat upon his back, and a hunting-crop should be passed under his neck, the buckle of a girth attached, and then the crop drawn back again, bringing the girth with it. Another girth should be applied in the same way under the shoulders, and so on down the whole length of the body. A good stout pole should then be placed each side of the patient, and the ends of the girths firmly attached by means of stout cord or whiphongs.

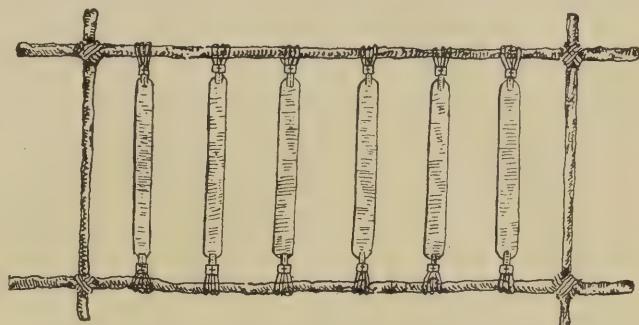
It is best to keep the poles separate from one another by attaching cross-pieces above the head and below the feet, as shown in the figure. In the absence of a sufficient number of girths, the girths of the injured man's own horse and the stirrup leathers might be brought into requisition, and even the reins might be made use of in this way.

PREVENTION

I have already mentioned the seat, and explained how, when a fall occurs, a well-balanced seat will save, to a great extent, any injury to the head or spine. I may add that for headgear nothing is better than a good stout tall hunting hat thoroughly well fitted to the head. Should the rider fall upon his head, the collapse of this hat forms the best possible buffer. The old-fashioned hunting cap was very

good for protecting the top of the skull, but threw the shock upon the neck of the rider, converting what might have been a fractured skull possibly into a broken neck.

In one instance that I know of where a fall occurred when a hunting cap was worn, the cap was cracked all round where it fitted the head, about two inches from the lower edge. The patient had concussion of the brain, and was insensible for over



an hour. The shock was received all round the head, which showed great bruising. The patient made a complete recovery; but if he had done as many young men do in the present day, and worn a deer-stalker or soft round hat, such an absence of protection would doubtless have led to his death.

(To be continued.)

Health and Holiday Resorts

SOUTH AFRICA

MORE than forty years ago a near relative of the writer and her husband were induced to go to Natal to settle down at farming, or at any other occupation that they could find, upon the recommendation that the country was remarkably healthy.

This newly-married pair went off, 'bag and baggage,' without any previous experience out of England, to find a wild, uncultivated country, utterly devoid of the comforts they were used to. The best house in the place was but a wretched shanty, and no other flooring was known but that made of cow-dung, the latter substance being the native antidote to that marvellously active and voracious insect, the African tic.

The reputation of Natal as a healthy country remains, and is better known, but its roughness is, to a great extent, modified. Lieut.-Col. Sir Charles Mitchell, K.C.M.G., speaking at a meeting at the Royal Colonial Institute exactly seven years ago, described Natal as 'the garden of South Africa,' both for the invalid and the man in health, being the nearest approach to a residence in Paradise that could be met with, he thought, in any part of the world.

His own experience of the climate as suitable to 'chest disease' was most favourable. He referred to two instances of men whom he knew whose lives were despaired of from phthisis, and who rapidly recovered after taking up their residence in Natal.

The meeting was one at which Dr. Symes Thompson read a most interesting paper upon South Africa as a health resort, he having had considerable experience of the country, not only from sending patients there, but also from a personal visit.

There seems to be no doubt whatever that in South Africa we have a most valuable resort for all cases of weakness of lungs, and especially for those who are in the early stage of phthisis; while if they can be assured of obtaining a fair amount of home comforts, it is a more favourable place to which to send more advanced cases of lung affection than perhaps any other country we know of.

A very useful guide to South Africa is published by the Castle Mail Packets Company, edited annually by A. Samler Brown and G. Gordon Brown, and published by Messrs. Sampson Low & Co., giving full details of routes, the characteristics of the country, climate, &c.

It is hardly necessary to remark that the seasons are the reverse to those of Europe, summer extending from October to March, and winter from April to September. The general character of the country depends upon sudden changes in altitude, as shown in the accompanying diagram. There is the coast plateau, which varies in width from five to fifty miles; then a range of mountains, and, at an elevation of something over 1,000 feet, we have the Southern Karroo; then another range of mountains, and, above that, at 2,500 feet and upwards, the Central Karroo; yet another range, and above that the Northern Karroo.

The coast is characterised by its comparative dampness and relaxing atmosphere. Increased dryness and absence of vegetation are found as we ascend into the higher grounds.

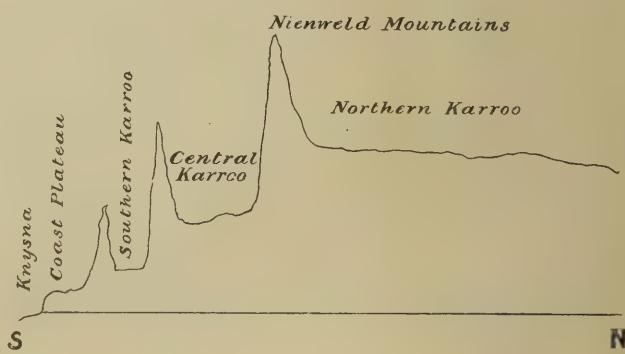
South Africa is decidedly more temperate than the climate of countries in the same latitude north of the Equator, and this is a result of the extensive ocean which spreads to the south of this continent, permitting 'prevailing summer winds from the south-east to pass direct to the land from the cool regions of the Antarctic seas.'

Another important influence upon the climate is that of the currents of air. The west coast is influenced by a cold Antarctic current, but the south and east coasts are affected by a warm current of air from the Mozambique and the Indian Ocean, the sea at the latter being five degrees warmer than at the former.

The temperature rises as we proceed east, Durban being eight degrees above the temperature of Cape Town.

The coast plateau averages 600 feet in height. Here there is most rain, although it is not excessive, averaging forty inches in the year. This plateau is a healthy one for healthy individuals, and may be suitable for some patients with bronchitic affections, but cannot be considered a suitable climate for invalids generally.

Southern Karroo.—Here is an enormous alteration in climate from the coast. There is much less rainfall, and the temperature is somewhat greater. The scenery is less interesting, being mountainous and interspersed with deep gullies. The soil, however, is very rich



when it can be brought under irrigation. This and the higher parts are more or less suitable to cases of phthisis; but we shall deal with individual places later.

Great or Central Karroo.—This plateau extends east and west for a distance of about 350 miles, at the north of which are the Nieuwveld and Great Sneeuberg ranges, the highest peak reaching to 7,800 feet. The area of this plateau exceeds 100,000 square miles. The vegetation of this district is

burned up in the summer, but is comparatively luxuriant in the winter. 'The winters are bright and clear, the nights cool, and the thermometer frequently below freezing-point, and the mountain-tops often covered with snow.' The temperature varies between 27° to 87°, and the winter climate is considered the most suitable for patients suffering from phthisis. The greatest drawback is the dust storms.

Northern Karroo.—The climate of this district consists of one long summer and one long winter. It is similar to the Central Karroo region, but the extremes are more accentuated. To show the dryness of the air, it has been stated by Dr. Symes Thompson that at Tarkastad, lying in an open ground with a rainfall of eighteen inches, the air is so dry that a knife left for a year or two on the Veld does not become rusty.

The address given by this last-named physician at the Royal Colonial Institute, which we have before referred to, contains very interesting and valuable information.

Dr. Symes Thompson states that Ailwal North (4,348 feet) is beyond doubt one of the most valuable health resorts in South Africa for phthisical patients. It is more easily reached than Bloemfontein, which is also very salubrious.

Tarkastad (4,280 feet) has the advantage of not being shut in by hills, and being in the midst of a fertile region surrounded by large farms.

Cradock (2,850 feet).—Queen's Town and King William's Town are healthy, but too hot.

Burghersdorp (4,650 feet), which is the chief town of the eastern division of the Karroo, has been recommended by Dr. Kanneneyer, as it is within easy access of higher and lower stations, allowing for changes.

Dr. Thompson states that phthisical cases do even better at Burghersdorp than at Bloemfontein.

'**Ceres** (1,700 feet), ten miles from the Ceres Road station and eighty-five miles from Cape Town, occupies a beautiful position, and is a very suitable place in which to spend a few weeks before deciding on a more settled home.'

Much improvement in the way of accommodation for visitors has taken place during the last seven years, since the time Dr. Thompson read his paper, but there yet remains much to be desired in this respect.

Graham's Town and King William's Town are fairly well supplied with the comforts and luxuries of life, and it is stated of Tarkastad that one of its

advantages is the possession of an exceedingly comfortable hotel—Passmore's.

Speaking generally of South Africa, we seem to possess in this country great advantages for the treatment of phthisis, and it compares favourably as to climate with any other part of the world, the only drawback being the want of comforts, and also the want of occupation and amusement.

For those who possess resources, both of money and energy, the country is most suitable. The Karroo districts supply all that is wanted as regards climate in phthisical cases, and, notwithstanding the deficiencies, the free-and-easy mode of existence becomes to many so pleasant that a return to more civilised life is often viewed with regret.

In sending patients to the Cape it must not be forgotten that the voyage itself is beneficial, and we may refer the reader to the writings of Drs. Douglas Powell, Lawrence Herman, and others in support of this statement. It has been suggested that invalids going to the Cape should be careful not to catch cold after passing the line, as the temperature falls somewhat suddenly. Also, that before going up-country they will do well to break their journey and remain for a time near the sea level. The railways grant through tickets allowing stoppages. The Cape Official Handbook and the report of Dr. Thompson's paper should be consulted by those wishing to have further information upon this subject.

Therapeutics

The treatment of asthma in children.—Perier ('Journal de Méd. de Paris,' March 31, 1895) gives the following directions for the treatment of this condition in children:

I. During the simple asthmatic crisis :

1. Open the windows and give the patient air, without, however, producing a draught, and apply mustard poultices and plaisters to the limbs.

2. If the windows cannot be opened, and if the poultices do not produce the desired result, fumigate with datura or nitrate-paper, or pour out some drops of pyridine, of ether, or iodide of ethyl (in the case of older children) in the neighbourhood of the child, upon a handkerchief or in a saucer. The author has often helped a patient who was obliged to live in an overheated atmosphere, by placing over an alcohol lamp and keeping constantly boiling a large dish of water containing leaves of eucalyptus.

3. Give the following potion every quarter of an hour in dessertspoonful doses:

R <small>y</small>	Tr. belladonnæ	gtt. v-x
	Tr. grindeliae	gtt. x-xx
	Tr. lobeliæ	gtt. xx-xxx
	Syr. ætheris	ʒijss-ʒv
	Syr. aurantii florum	ʒv
	Liquor. calcis	ʒij, ʒviss

4. If there is no improvement, give a dose of antipyrin proportionate to the age of the child in sweetened water.

II. In crises accompanied by acute bronchitis or pulmonary congestion:

1. Cover the chest with mustard cataplasms or dry cuppings.

2. Fumigations and inhalations as in the foregoing case.

3. Every quarter of an hour a tea- or dessertspoonful of the following:

R <small>y</small>	Tr. belladonnæ	gtt. v-x
	Syr. ipecacuanhae }	
	Syr. ætheris }	āā ʒijss
	Syr. codeinæ }	f ʒij
	Syr. aurantii florum	f ʒij
	Liquor. calcis	f ʒij

III. In simple spasmodyc asthma outside of the crises:

1. Give before lunch and dinner a tea- or dessertspoonful of the following for fifteen days:

R <small>y</small>	Potass. iodidi	ʒi-ʒijss
	Syr. tolutani	āā f ʒijss
	Syr. aurantii	

2. During the next fifteen days a teaspoonful of the following before lunch and dinner:

R <small>y</small>	Sodii arseniatis	gr. $\frac{5}{6}$
	Aqua destillatæ	f ʒviss

To be taken in a little malt extract or bitter beer.

3. Two days of the week suspend the treatment, and give a teaspoonful of the following laxative:

R <small>y</small>	Sulphur sublimat.	
	Potassii bitartr.	āā ʒxv
	Magnes. calc.	
	Pulv. anis.	ʒss.

4. A simple diet, from which are excluded spiced and highly seasoned meats, fish, &c.

5. Frictions each morning over the whole body with flannel or hair gloves.

6. Exercise as much as possible in the open air.

7. The summer spent in high altitudes.

IV. Asthma with chronic bronchitis and emphysema:

1. Treatment as given above, with the addition of the following:

2. Every morning for fifteen days a quarter of a glass of Labrassere water in hot milk.

3. During the next fifteen days a dessertspoonful of the following in milk:

R <small>y</small>	Calcii iodidi	ʒi-ʒijss
	Syr. tolutani	āā f ʒij
	Syr. simplicis	
	Syr. codeinæ	f ʒi-f ʒiss

4. Every second day paint alternately the anterior and posterior aspects of the chest with tincture of iodine.

5. Baths of compressed air.

6. In summer a vacation in a region of medium altitude.

V. Asthma in malarial subjects:

1. General treatment as for Class III., with the insistence on the use of the arsenical formula for twenty days, to ten of the iodide.

2. During the period of incubation give twice daily of quinine hydrochloro-sulphate, 2 to 5 grains, in capsules or suppositories, or as follows:

R <small>y</small>	Quininæ hydrochloro-sulphatis	gr. iij-vi
	Syrup. rubi idæi	f ʒi
	Aq. dest.	f ʒij

Sig.—A dessertspoonful every hour and the measures additional as employed in Class I.

VI. Hay fever.

1. During the oncoming of the attack introduce into the nares absorbent cotton saturated with the following:

R <small>y</small>	Cocaine hydrochlor.	. . . . .	gr. vijss
	Cherry-laurel water		ʒijss

2. Give the following:

R <small>y</small>	Antipyrin	gr. vijss-xv
	Syr. aurantii	
	Aq. dest.	āā ʒiss

Sig.—A dessertspoonful every half-hour.

Or quinine may be given as above.

3. Send the child to the mountains or to the sea.

4. Look carefully for the cause—gout, neuritis, hypertrophic rhinitis.—*Therapeutic Gazette*, Sept. 1895.

We have received from Messrs. Burroughs Wellcome & Co. a neat little black snuff-box which will conveniently go into the waistcoat pocket. It contains a new preparation composed of menthol, cocaine ($\frac{1}{6}$ per cent.), ammonium chloride, camphor, lycopodium, &c.

The use of menthol in an atomised form has hitherto been found of great service in catarrh and other congested states of the naso-pharyngeal tract, and we anticipate considerable usefulness for this combination.

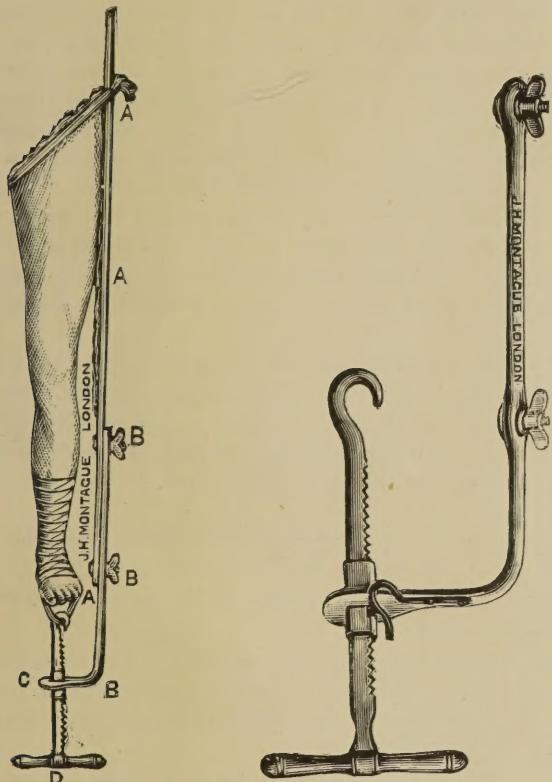
It is prescribed as Insufflatio Mentholatis Comp. (B. W. & Co.).

Apparatus

AN EXTENSION SPLINT FOR THE LOWER EXTREMITY

By JOHN LOWE, M.D.

THIS extension splint was devised by me more than thirty years ago, and has been in use constantly ever since, both in private and hospital practice, but has never before been publicly described. The splint is made of nickel-plated—or, for the sake of cheapness, of lacquered—iron; the bar of metal is half an inch in thickness, rounded on the outer and flattened on the inner side; opposite the foot it is bent at a right angle, so as to pass across the sole. Opposite the middle of the sole the metal is thickened, and through



A A, padded wooden splint; B, B, thumbscrews; C, collar and spring catch; D, handle for making extension

an opening (c) in this part a stout hook is passed, having a handle by means of which extension can be made. This hook works with a ratchet and spring catch.

The upper portion of the splint is attached, by means of two bolts fastened by thumbscrews (B, B), to

a padded splint (A A), which is, in fact, the upper portion of an ordinary long splint. It can be adjusted to splints of various lengths.

The application is made as follows. A layer of wadding having been placed over the instep, strips of very stout adhesive plaster are applied to the side of the leg and over the instep, returning in a figure of eight to the opposite side, leaving a loop of plaster under the sole of the foot. A few turns of bandage should be applied to keep the plaster in place. The hook passed through the bar to its fullest extent is made to catch the loop. A perineal band is next applied, and fastened tightly to the upper part of the splint. The limb is now ready for extension, which in simple cases may be made by one person unaided. If the fracture is on the right side, the splint is held and pressed upward with the left hand, while with the right steady traction is made downwards. If necessary, a second person may hold the splint and press it upwards, while the surgeon makes downward traction by means of the handle. A few turns of bandage round the knee may be required, but are not always necessary. The advantages of this form of splint are :—

1. That it serves for nearly all fractures of the lower extremity at almost all ages.
2. In most cases a fracture can be reduced without help.
3. There is no possibility of displacement.
4. Increased extension can be made at any time.
5. The whole limb is always open to inspection.
6. There is no possibility of a sore being produced.

And, lastly, it is always found that the injured limb is somewhat longer than the other.

The instrument was first made for me by Mr. Aitken, of York, and can now also be obtained from Mr. Montague, of Bond Street, London.

Reviews

Moral Pathology. By ARTHUR E. GILES, M.D., B.Sc. Crown 8vo., pp. 179. Price 2s. 6d. (London: Swan Sonnenschein & Co., 1895. New York: Charles Scribner's Sons.)

This is a charming little book, and shows that the author is capable of grasping something deeper than the common facts of ordinary life. Its object is indicated by the following lines adopted from Oliver Wendell Holmes's 'The Poet at the Breakfast Table': 'Sin, like disease, is a vital

process. It is a function, and not an entity. It must be studied as a section of anthropology. No preconceived idea must be allowed to interfere with our investigation of the deranged spiritual function, any more than the old ideas of demoniacal possession must be allowed to interfere with our study of epilepsy. Spiritual pathology is a proper subject for direct observation and analysis, like any other subject involving a series of living actions.'

The object is excellent, its usefulness cannot be questioned, and all the subjects discussed are dealt with firmly, judiciously, and attractively. This is a book which should be in the hands of every parent.

Reynolds's Geological Atlas of Great Britain: comprising a Series of Maps Geologically Coloured from the best Authorities, preceded by a Description of the Geological Structure of Great Britain, and the Geological Features of the Several Counties of England and Wales, Mineral Products, &c., with Section and Views. Second edition. Price 2s. 6d. (London: James Reynolds & Sons, 174 Strand.)

Although a knowledge of geology is of very great value to every medical practitioner, yet there are but few who have time to make it a study. The work which we have before us forms an excellent book of reference for the purpose of gaining immediate information. It is a very handy atlas, quite ornamentally got up, and is, moreover, published at a very small price.

Elements of Practical Medicine. Seventh edition. By ALFRED H. CARTER, M.D. Lond., Fellow of the Royal College of Physicians, Lond., Senior Physician to the Queen's Hospital, Birmingham. Crown 8vo. Price 10s. (London: H. K. Lewis.)

This is a very practical work, and deservedly popular. Dr. Carter has taken the opportunity of the necessity for bringing out new editions to keep the work abreast of the medical knowledge of the day.

Dr. Carter is Senior Physician to the Queen's Hospital, Birmingham, physician to the workhouse infirmary, and is considered an authority on all he writes about.

The present edition has a very useful article on skin diseases by Mr. Malcolm Morris.

Clinical Illustrations of the Diseases of the Fallopian Tubes and of Tubal Gestation. By CHARLES J. CULLINGWORTH. Price 12s. 6d. (Rivington, Percival & Co., London.)

This book consists of fifteen lithographic plates, comprising in all thirty-four figures; of the fifteen plates, seven are printed in colours. The peculiar features of this book consist in the fact that the specimens were obtained exclusively from patients under Dr. Cullingworth's care, and no attempt is made to furnish the reader with generalities; each case is used mainly to illustrate a recognised patho-

logical condition in connection with the clinical signs. Thus the book will be welcome to practitioners as an admirable guide to the differential diagnosis of pelvic swellings. We are glad to point out that the plates are faithful reproductions of the appearance of the parts when first removed from the body. The conditions represented are hydro-salpinx, salpingitis, tubercular salpingitis, haematosalpinx, pregnant tubes, and primary carcinoma of the Fallopian tubes.

The plates illustrating haematosalpinx and tubal pregnancy are very good, some of them illustrating very exceptional conditions, notably Plate XII. It is curious that the least satisfactory from an anatomical point of view is the frontispiece; it is too diagrammatic, and important details are omitted.

The summary at the end of the book in relation to salpingitis and tubal gestation is very useful and valuable, and furnishes in a few pages the author's opinions on these important subjects. It indicates that his views are in harmony with those of the most advanced investigators. The amazing alteration which has taken place in our knowledge of the early stages of tubal pregnancy is briefly indicated in this summary, and the effects of this increased knowledge have led to a more radical and satisfactory method of treatment, as the records of Dr. Cullingworth's cases demonstrate in an unmistakable manner. The life-saving results of this class of surgery are very great, and this monograph will fulfil a very important work in diffusing among practitioners the essential clinical features of that very grave accident, rupture or abortion of a gravid tube.

To the students, past and present, of St. Thomas's Hospital this book will be very valuable. It will prove to them that their Obstetric Physician is in the forefront of those engaged in the scientific advance of the surgery of the diseases of the female genital organs.

The Medical Digest, or Busy Practitioner's Vade-Macum. Appendix, including the Years 1891-4, and to August 1895. By Richard Neale, M.D. Lond. (London: Ledger, Smith & Co.)

We have received this new addition to Dr. Neale's very valuable work. It is quite equal in its completeness to the former publications of the 'Medical Digest,' and that is saying a great deal.

Invaluable as this work is to those who are writing papers or works upon any medical subject, perhaps its more important use is in respect to its second title, the 'Busy Practitioner's Vade-Macum,' for it forms a ready reference in case of emergencies. No handier reference book exists for use in general practice. A practitioner, being called to an obscure case in which unusual complications exist, has only to consult 'The Digest,' when he will be reminded of all the different conditions under which the disease appears, its various complications, and the remedies.

